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The Trade Wind Zone Oceanography Pilot Study
Part I: Townsend Cromwell Cruises 1, 2, and 3
February to April 1964

By Robert L. Charnell, David W. K. Au,
and Gunter R. Seckel

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UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF COMMERCIAL FISHERIES

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ABSTRACT

A standard grid of oceanographic stations in an area bounded by lat. 10° and 26° N., and long. 148° and 157° W., was occupied at monthly intervals between February 1964 and June 1965. For the first set of three cruises, Townsend Cromwell cruises 1, 2, and 3, February to April 1964, oceanographic station data are tabulated, BT data are presented in vertical sections, and the distribution of surface temperature, surface salinity, and surface dynamic height relative to 1,000 m. (cruise 1), and 1,200 m. (cruises 2 and 3) are shown in charts for each cruise. Methods and procedures as well as the limitations of the data are discussed.

INTRODUCTION

This is the first of a series of reports presenting physical oceanographic data of the Trade Wind Zone Oceanography Pilot Study conducted by the Bureau of Commercial Fisheries Biological Laboratory, Honolulu. The data were obtained during a series of 16 monthly cruises between February 1964 and June 1965 over a set station pattern in an area near the Hawaiian Islands bounded approximately by lat. 10° and 26° N. and long. 148° and 157° W.

The complete set of observations represents a three-dimensional time-sequence distribution of properties (temperature, salinity....) in the trade wind zone of the central North Pacific. It is a pilot study of an investigation in which seasonal changes in the distribution of properties are to be explained in terms of 1) seasonal changes in the processes of net heat and water exchange across the sea surface, and 2) the effects of seasonal changes in wind stress and water motion. The Trade Wind Zone Oceanography Program was planned by Gunter R. Seckel and is carried out under his direction by HL (Bureau of Commercial Fisheries Biological Laboratory, Honolulu).

This report contains the BT (bathythermograph) and oceanographic station data for the first, second, and third cruises in the series. Figure 1 shows the cruise track for the three cruises and gives the position of the Nansen bottle oceanographic casts and the BT casts.

All cruises were made by the R/V Townsend Cromwell, commanded by Captain Robert E. K. D. Lee, with officers Jan Liefting and Pete Andrich. The scientific parties were composed of the following:

Townsend Cromwell cruise 1:
February 14 to March 6, 1964

Gunter R. Seckel - HL - Field Party Chief
David W. K. Au - HL
Robert P. Brown - HL
William E. Hauser - HL
Henry M. Kishinami - HL
Lloyd T. Watarai - HL
John Hazelworth - U.S. Naval Oceanographic Office

Note.--Robert L. Charnell, Oceanographer, presently with Hazelton Nuclear Science Corp., Palo Alto, California 94303, formerly with Bureau of Commercial Fisheries Biological Laboratory, Honolulu, Hawaii; David W. K. Au, Physical Science Technician and Gunter R. Seckel, Oceanographer, Bureau of Commercial Fisheries Biological Laboratory, Honolulu, Hawaii 96812.

Townsend Cromwell cruise 2:
March 16 to April 5, 1964
Robert P. Brown - HL - Field Party Chief
David W. K. Au - HL
Melvin E. Kau - HL
Rodney Kimura - HL
Lloyd T. Watarai - HL
Warren King - Smithsonian Institution
Robert Sundell - Smithsonian Institution
Townsend Cromwell cruise 3:
April 12 to May 4, 1964
Lloyd T. Watarai - HL - Field Party Chief (4/12-4/18)
David W. K. Au - HL - Field Party Chief (4/19-5/4)
Howard Adrian - HL
Joseph R. Harada - HL
Henry M. Kishinami - HL
Douglas Edsall - National Oceanographic Data Center
David Bratley - Smithsonian Institution
Warren King - Smithsonian Institution

OBSERVATIONS[1/]

In addition to the regular Nansen and BT casts shown in figure 1, BT casts were made at 18.5-km. (10-nautical-mile) intervals for studies of variability between stations 19 and 21, 26 and 28, and 35 and 37, except for cruise 1, where one series was between stations 31 and 33 instead of stations 19 and 21.

To supplement the physical oceanographic data presented in this report, additional information of the following types was obtained.

Biological

A 1/2-hour surface plankton tow was taken daily at 2000 hours with a 1-m. net. Flyingfish which stranded themselves on deck were collected daily. Regular observations of fish schools, sea mammals, and birds were supplemented by more detailed bird counts by observers from the Smithsonian Institution on Cromwell cruises 2 and 3.

Meteorological

Rain measurements as well as standard weather observations were taken four times daily. Radiation from sun and sky was measured and recorded daily with an Eppley pyranometer. These observations were supplemented by daily color photographs of clouds.

Current

Ten plastic-enclosed drift cards, described by Barkley, Ito, and Brown (1964), were released at each BT cast. Current-measuring techniques were tested with an Ekman current meter, suspended from the ship. The ship was drifting relative to a parachute drogue placed at a depth of 1,200 m.

PREPARATION OF DATA

Standard oceanographic procedures were employed in the preparation of the data for this report. Salinity determinations were made on the University of Washington salinity bridge (Paquette, 1958). Duplicate determinations were made with an induction salinometer. When values differed more than 0.02 °/oo, the salinity was redetermined on the U.W. salinity bridge, and the mean of the salinity bridge determinations was reported. All thermometers had been calibrated at HL since April 1962. The reported temperatures are estimated to be accurate to ±0.02°C. Application of corrections to protected and unprotected thermometer readings and computations of thermometric depths and L-Z values were performed with an IBM 7040 digital computer[2/] at the University of Hawaii Computing Center with a program written at HL. Depths were determined by the use of values from the L-Z curve for the actual depth. This procedure gave depth estimated to be within ±10 m. down to 1,000 m. and within ±1 percent below 1,000 m.

Sigma-t, specific volume anomaly, and the dynamic height were computed on the IBM 7040 computer by the program prepared at HL and based on equations given by LaFond (1951). The computer also was used to interpolate all properties at standard depths by means of a subroutine furnished by the University of Washington Oceanography Department and based on the interpolation method outlined by Rattray (1962).

In the region of study, a sharp thermocline generally separates a surface mixed layer from

[1/] All data not presented in this report are on file at the Bureau of Commercial Fisheries Biological Laboratory, Honolulu 96812.

[2/] Trade names referred to in this publication do not imply endorsement of commercial products.

the subsurface waters. Only infrequently do Nansen casts adequately define this configuration, with the result that the interpolation program provides inaccurate values for temperature. BT data were used to correct the temperature-depth curve in the thermocline and the isothermal layer. When necessary, a value of temperature was chosen from the corrected curve at standard depths in the mixed layer and upper thermocline and, with the corresponding salinity value from the T-S curve, was used with the Nansen cast data in the interpolation program. The resulting interpolated values were much nearer the actual oceanographic situation as implied by the BT trace.

To estimate the validity of values for the surface distribution charts, the surface bucket values of temperature and salinity were compared, for each cruise, with values from the surface Nansen bottles. For temperature, variation was fairly random so that the mean of the difference between the two values was well within the accuracy of the surface bucket thermometer. The root mean square value computed from the above differences was less than 0.2° C. The bucket salinity values, on the other hand, were consistently larger than the Nansen bottle values, most probably owing to salt contamination at the time of sampling. The mean of the differences was about 0.03 °/oo and the root mean square value was within 0.07 °/oo for each cruise.

PRESENTATION OF DATA

For each of the three cruises the original as well as derived data and section plots for the properties have been included.

Tables 1, 2, and 3 contain the oceanographic station data for cruises 1, 2, and 3, respectively. In addition to the position, date, and time at each station, weather and sea conditions in standard notation have been included in the heading of each station. The first five columns of each station listing show the observed depth, temperature, salinity, oxygen, and phosphate,[3] respectively; the next two columns contain calculated sigma-t and specific volume anomaly for the observed data. The next three columns present the interpolated values of temperature and salinity at standard depths and the last three columns contain sigma-t and the specific volume anomaly calculated from the interpolated data and the anomaly of dynamic height summed from the surface. The error terms, defined by the Rattray interpolation technique, that exceeded 0.10 for temperature and 0.05 for salinity have been noted below the tabulation for each station. Interpolated and extrapolated values as well as irregularities in the original data are noted in these tables.

Temperature distribution sections along long. 148° W., 151° W., 154° W., and 157° W. based on the 270-m. BT's are included; so are the shorter zonal sections between stations 7 and 8, 25 and 26, and 37 and 40. In addition, surface temperature and salinities are presented with each section. All the sections were plotted automatically by the model 566 Calcomp plotter with a program designed at HL. These seven BT sections are shown in figures 2 through 7 for cruise 1, figures 8 through 13 for cruise 2, and figures 14 through 19 for cruise 3.

The surface temperature distributions, based on bucket temperature at each BT cast, are shown in figures 20, 21, and 22 for cruises 1, 2, and 3, respectively.

The surface salinity distributions, based on bucket salinity samples at each BT cast, are shown in figures 23, 24, and 25 for cruises 1, 2, and 3, respectively.

The dynamic topography, relative to 1,000 m. for cruise 1 and 1,200 m. for cruises 2 and 3, is shown in figures 26, 27, and 28, respectively.

[3] Oxygen and phosphate data are available only for cruises 6 to 17; the columns in the tables of the present report bear the oxygen and phosphate headings only to have a uniform format for this series of reports.

ACKNOWLEDGMENTS

The data for these cruises were processed by HL personnel under the direction of Mary Lynne Godfrey. Betty Ann L. Keala did the computer programing.

LITERATURE CITED

BARKLEY, RICHARD A., BERNARD M. ITO, and ROBERT P. BROWN.
1964. Releases and recoveries of drift bottles and cards in the central Pacific. U.S. Fish Wildl. Serv., Spec. Sci. Rep. Fish. 492, iii + 31 p.

LaFOND, EUGENE C.
1951. Processing oceanographic data. U.S. Navy Hydrographic Office Publ. 614, 114 p.

PAQUETTE, ROBERT G.
1958. A modification of the Wenner-Smith-Soule salinity bridge for the determination of salinity in sea water. Dep. Oceanogr. Univ. Wash., Tech. Rep. 61, 57 p.

RATTRAY, MAURICE, JR.
1962. Interpolation errors and oceanographic sampling. Deep-Sea Res. 9: 25-37.

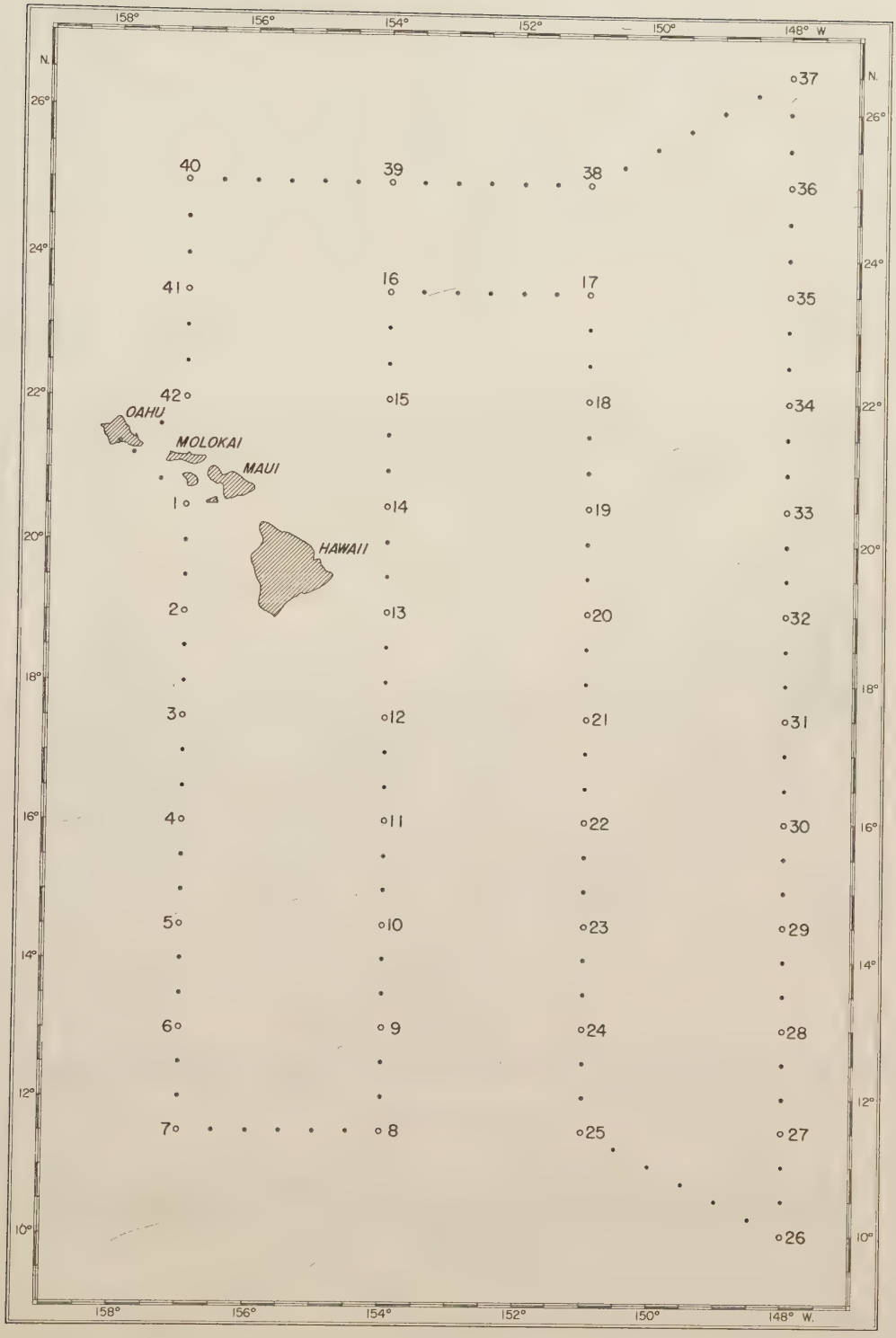


Figure 1.--Track chart for Townsend Cromwell cruises 1, 2, and 3. The large, numbered dots indicate the locations at which both hydrographic and BT (bathythermograph) casts were made; the smaller dots indicate locations at which only BT casts were made.

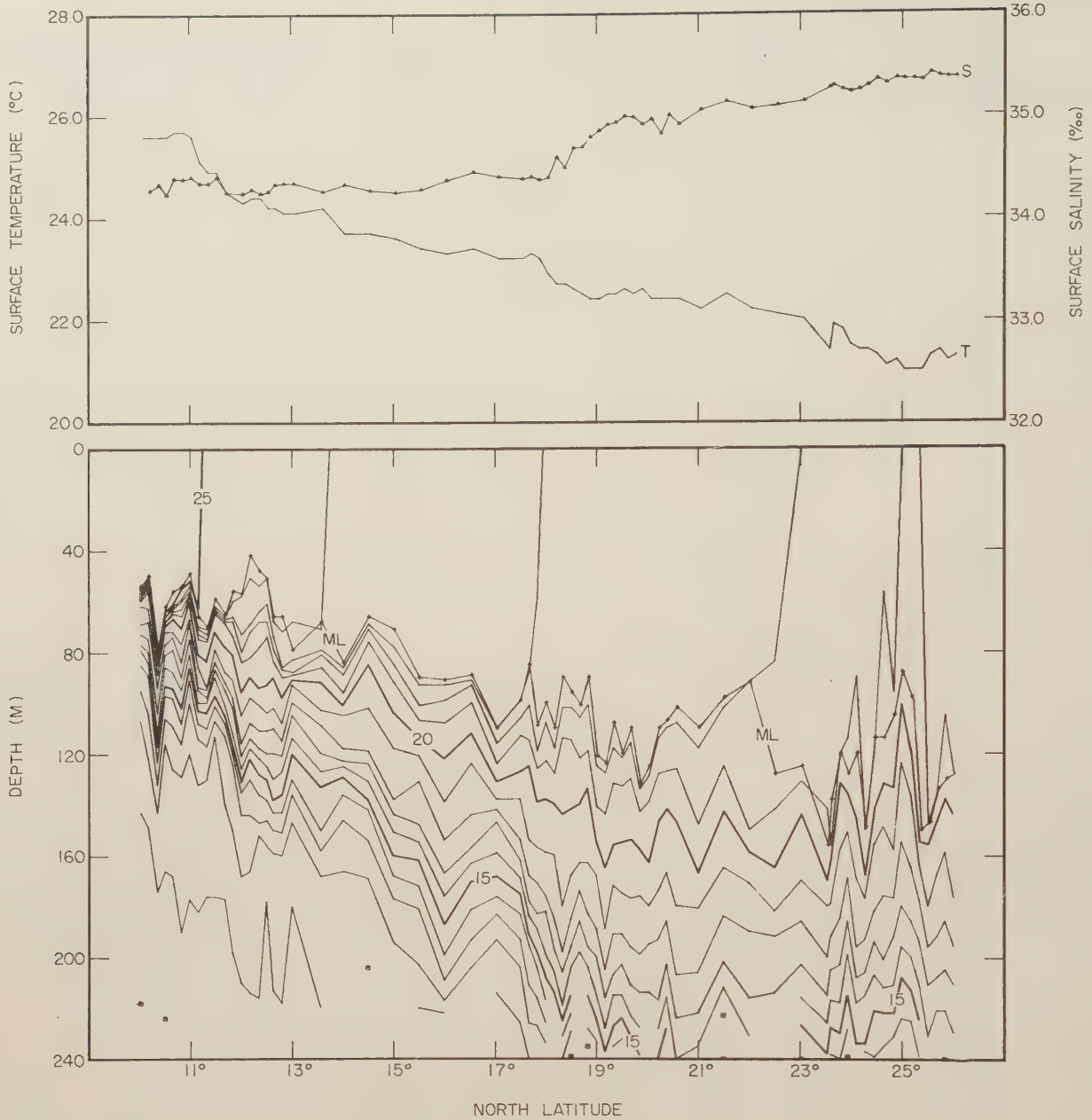
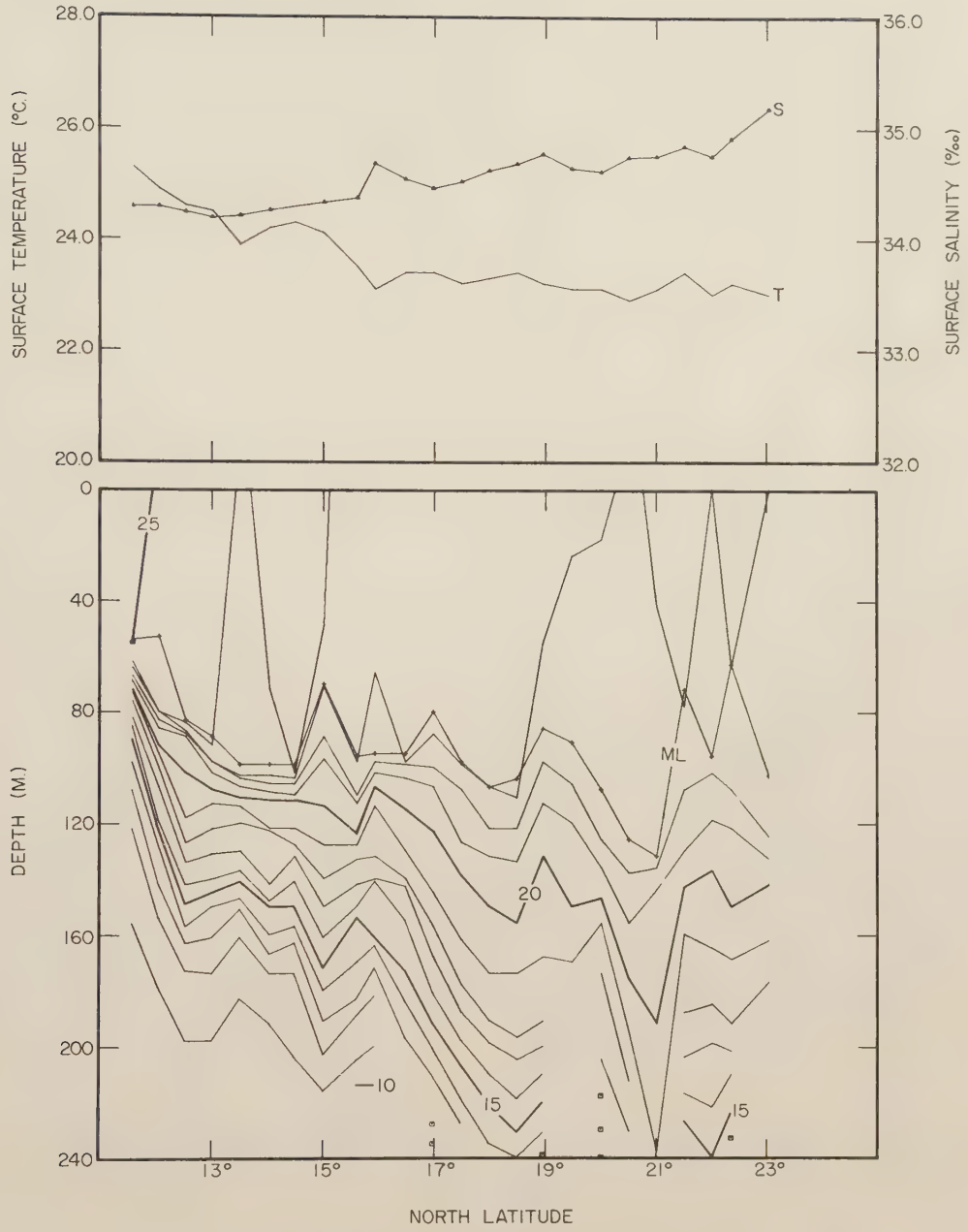


Figure 2.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 1 along long. 148° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.



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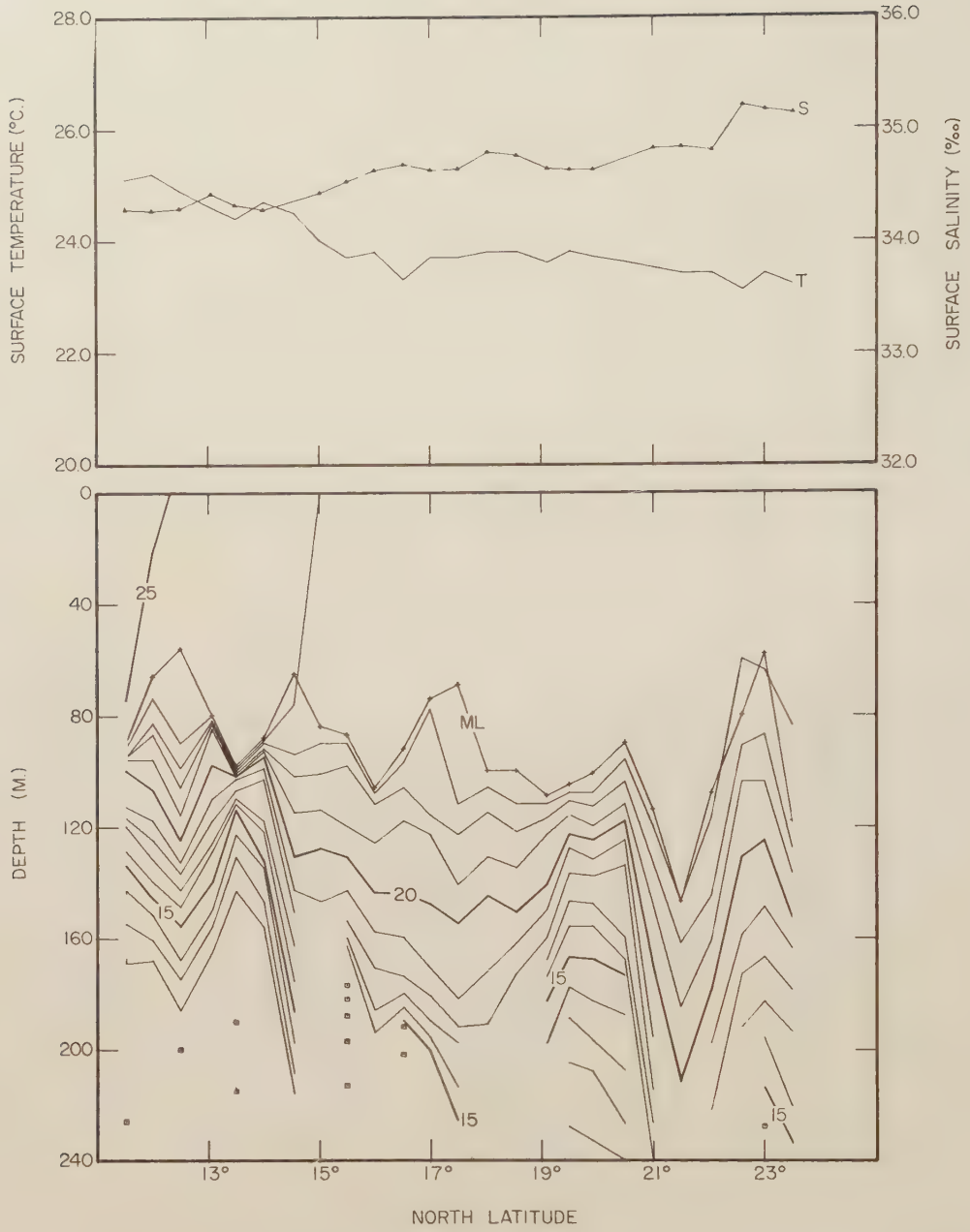


Figure 4.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 1 along long. 154° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

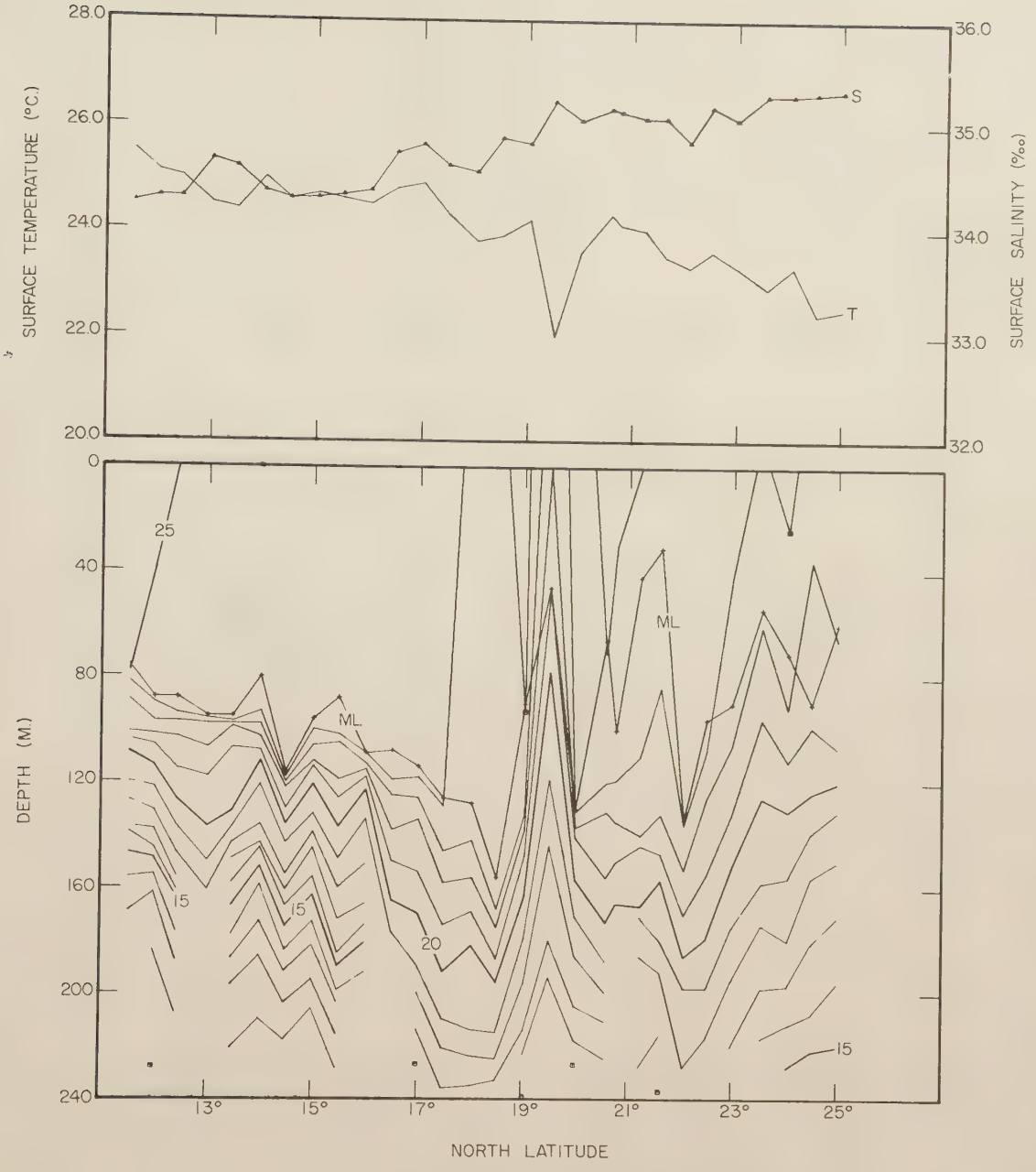


Figure 5.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 1- along long. 157° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

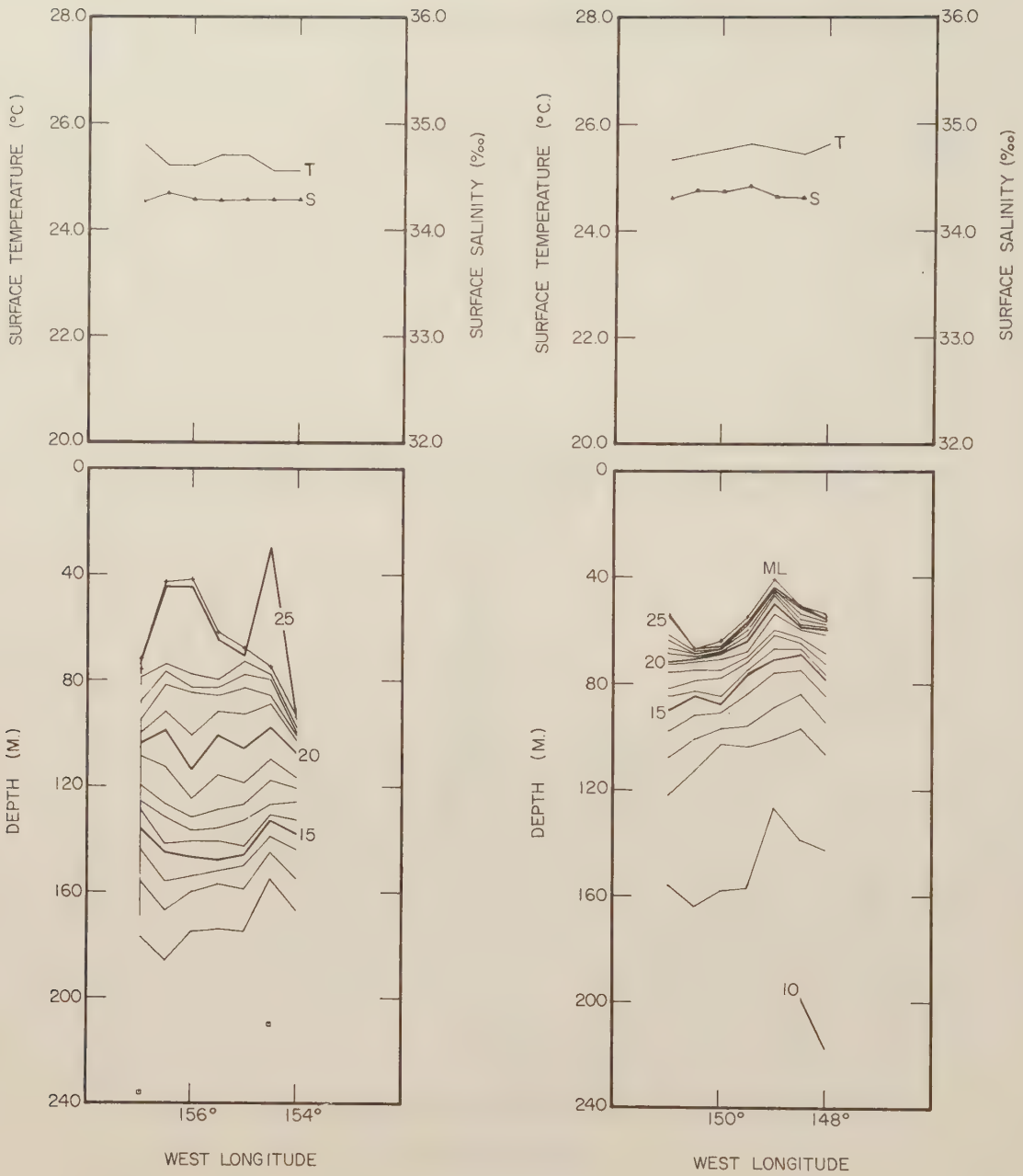
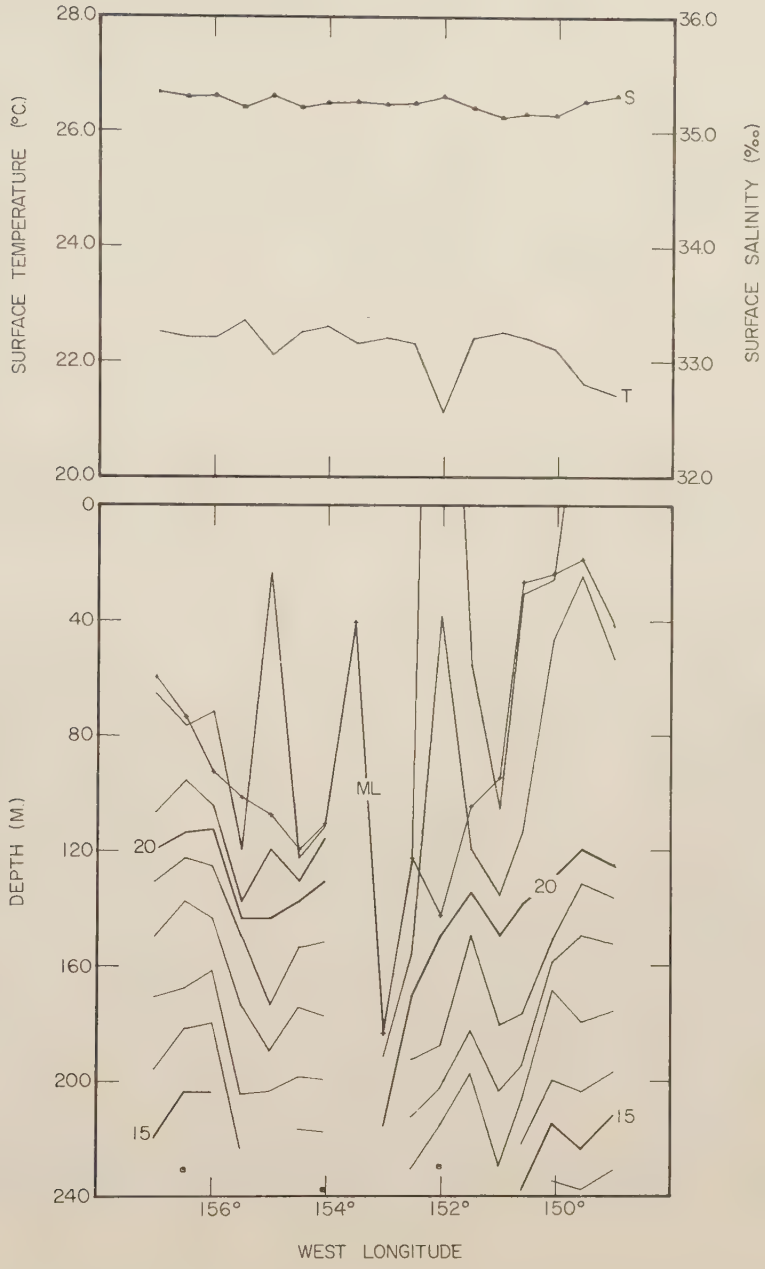


Figure 6.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and zonal BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 1 between stations 7 and 8, 25 and 26. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.



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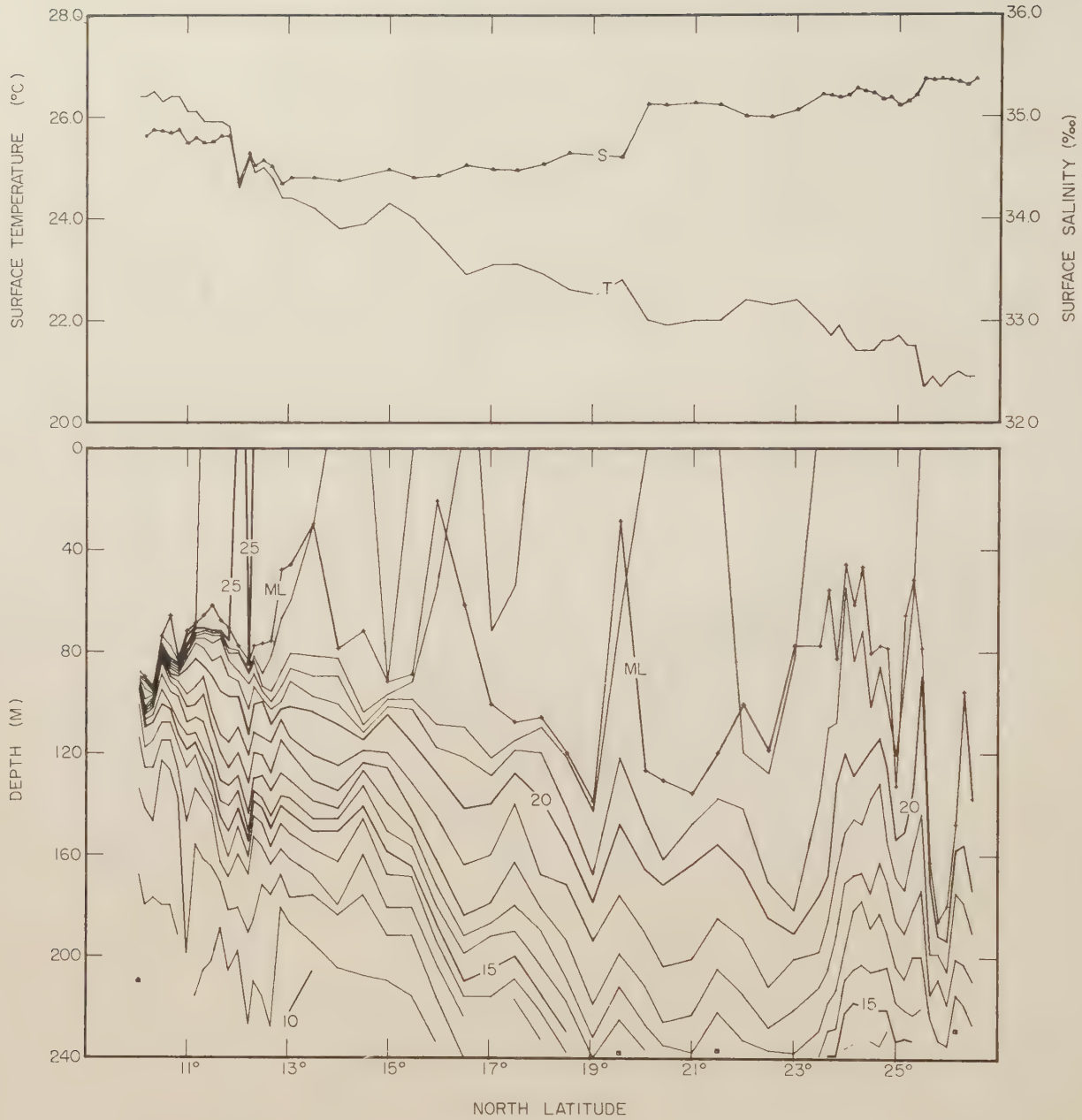
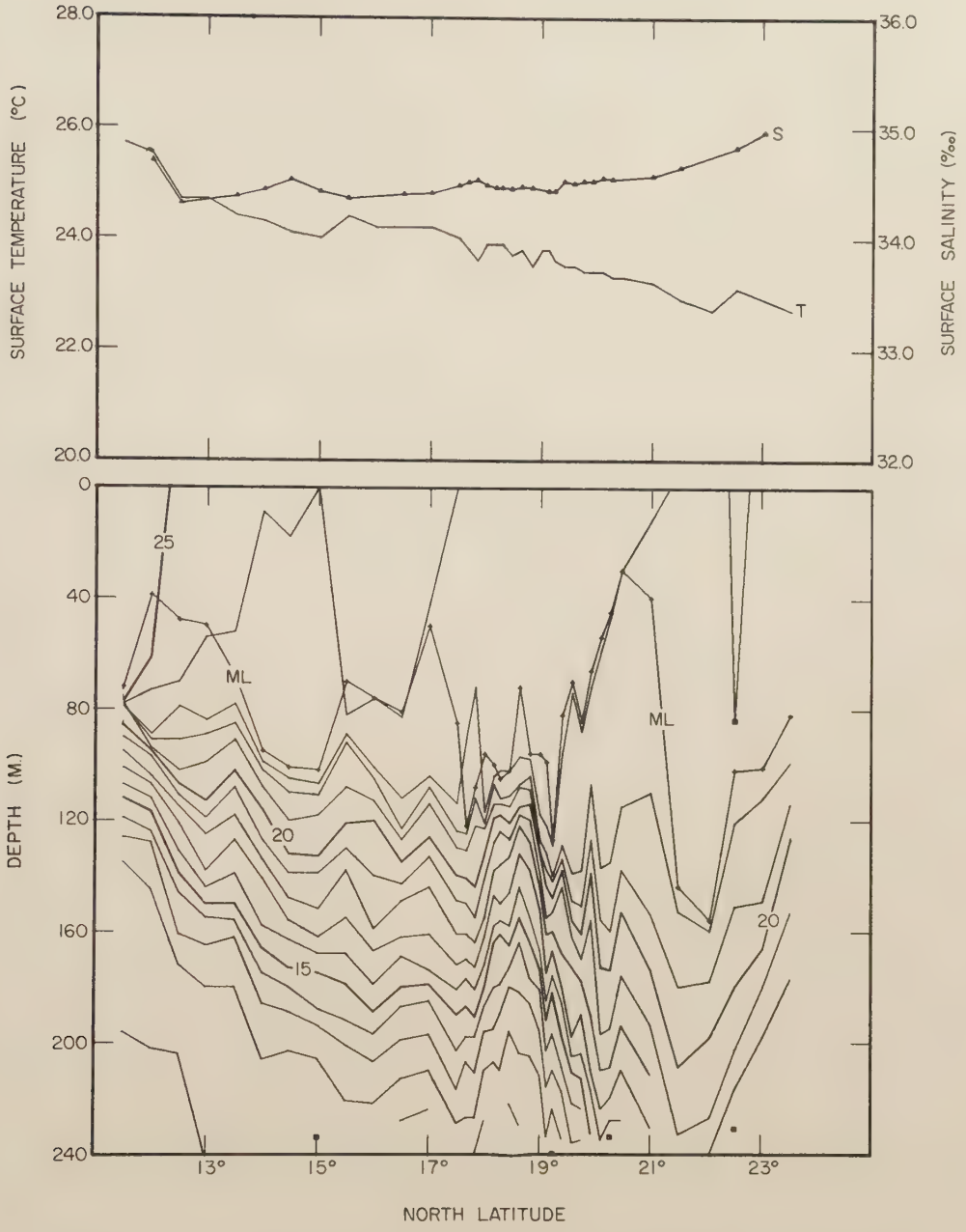


Figure 8.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 2 along long. 148° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.



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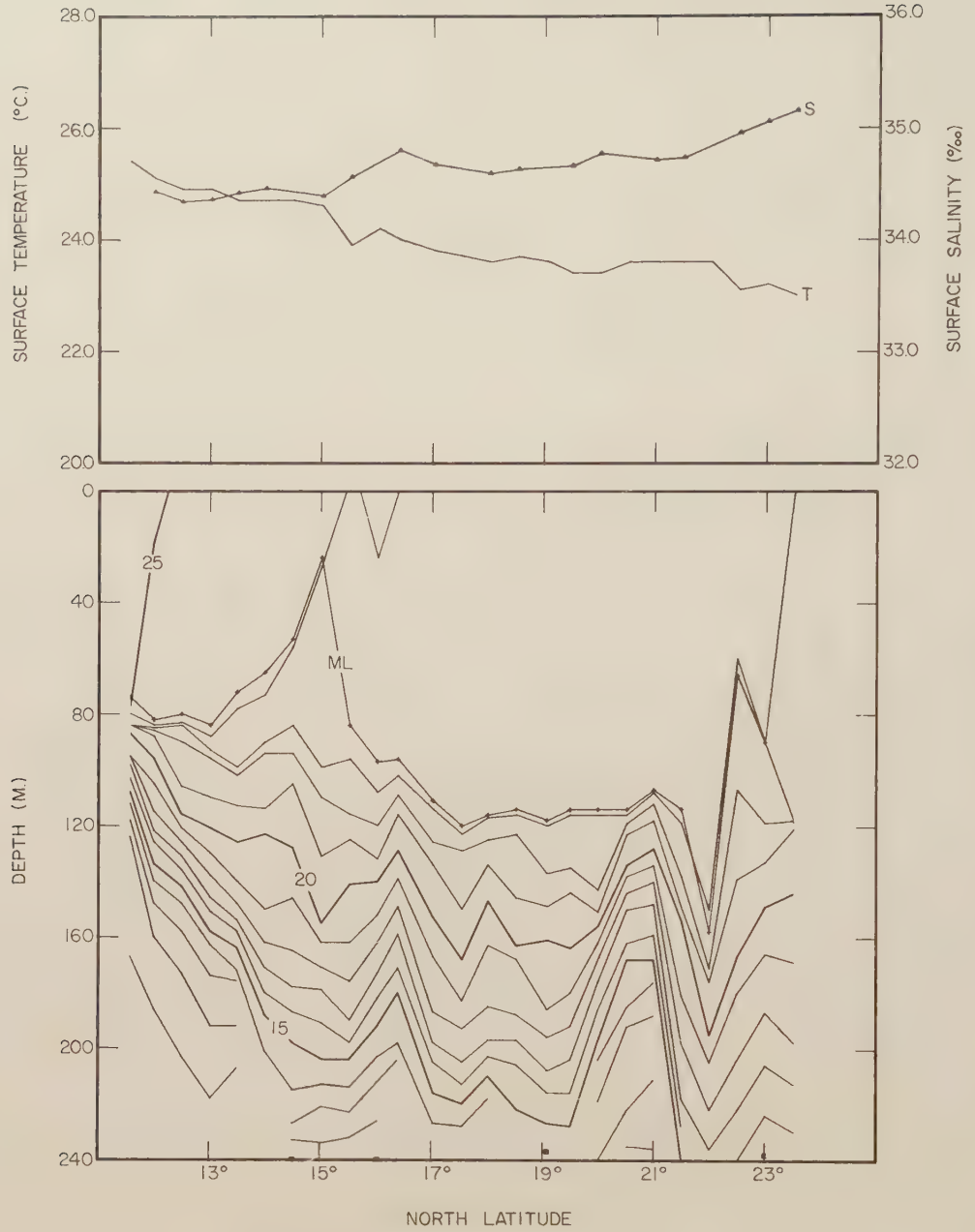

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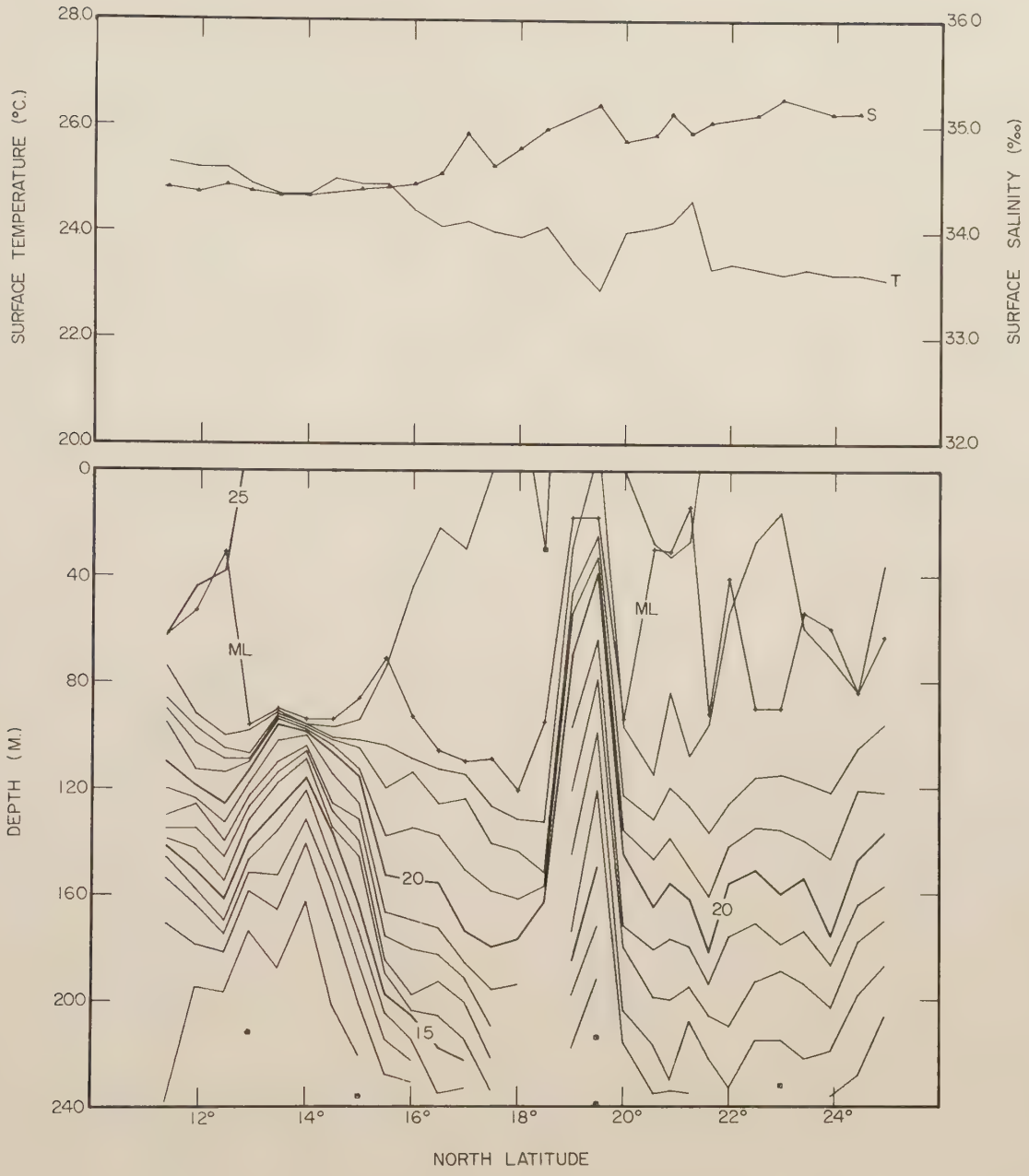

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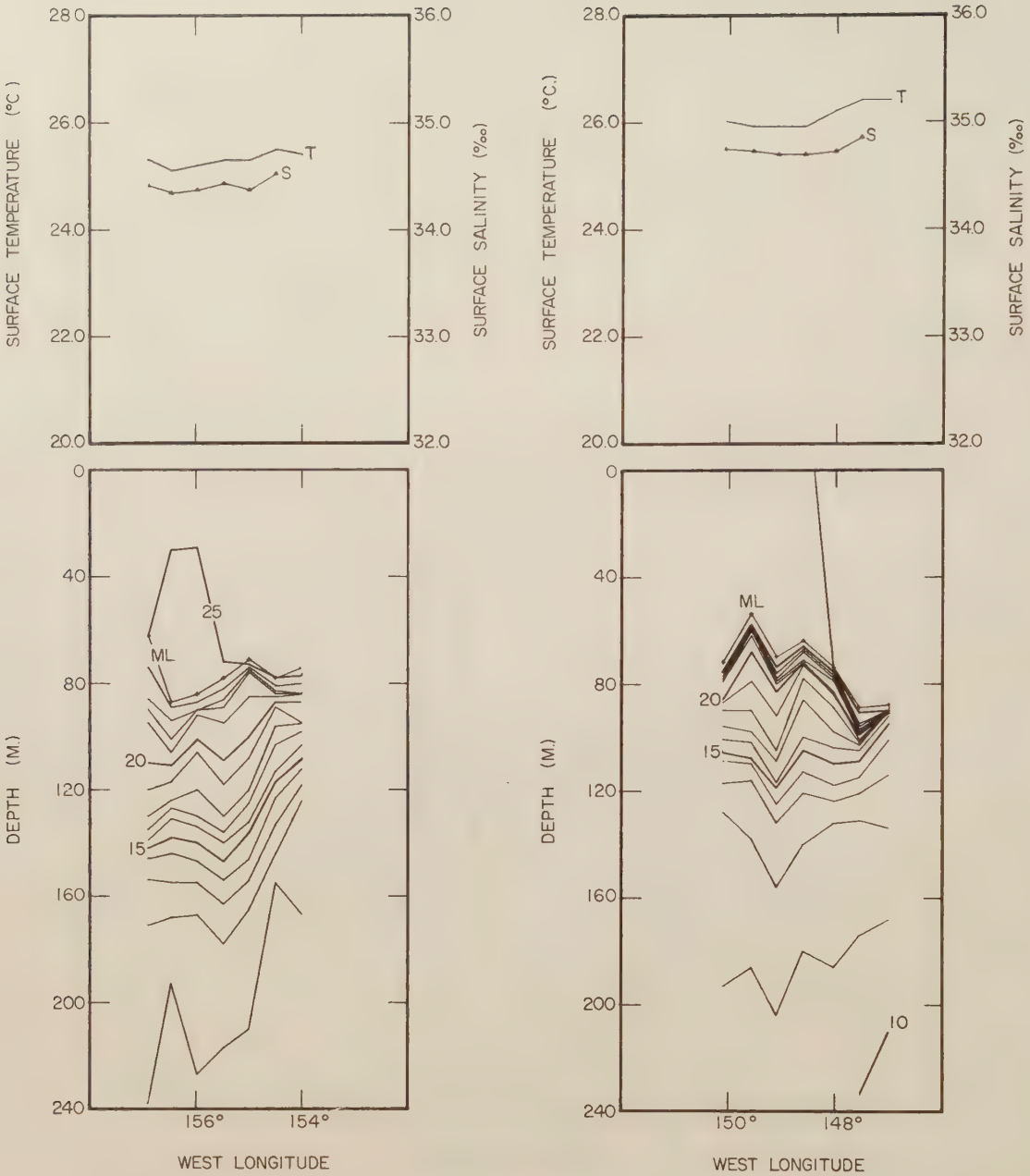
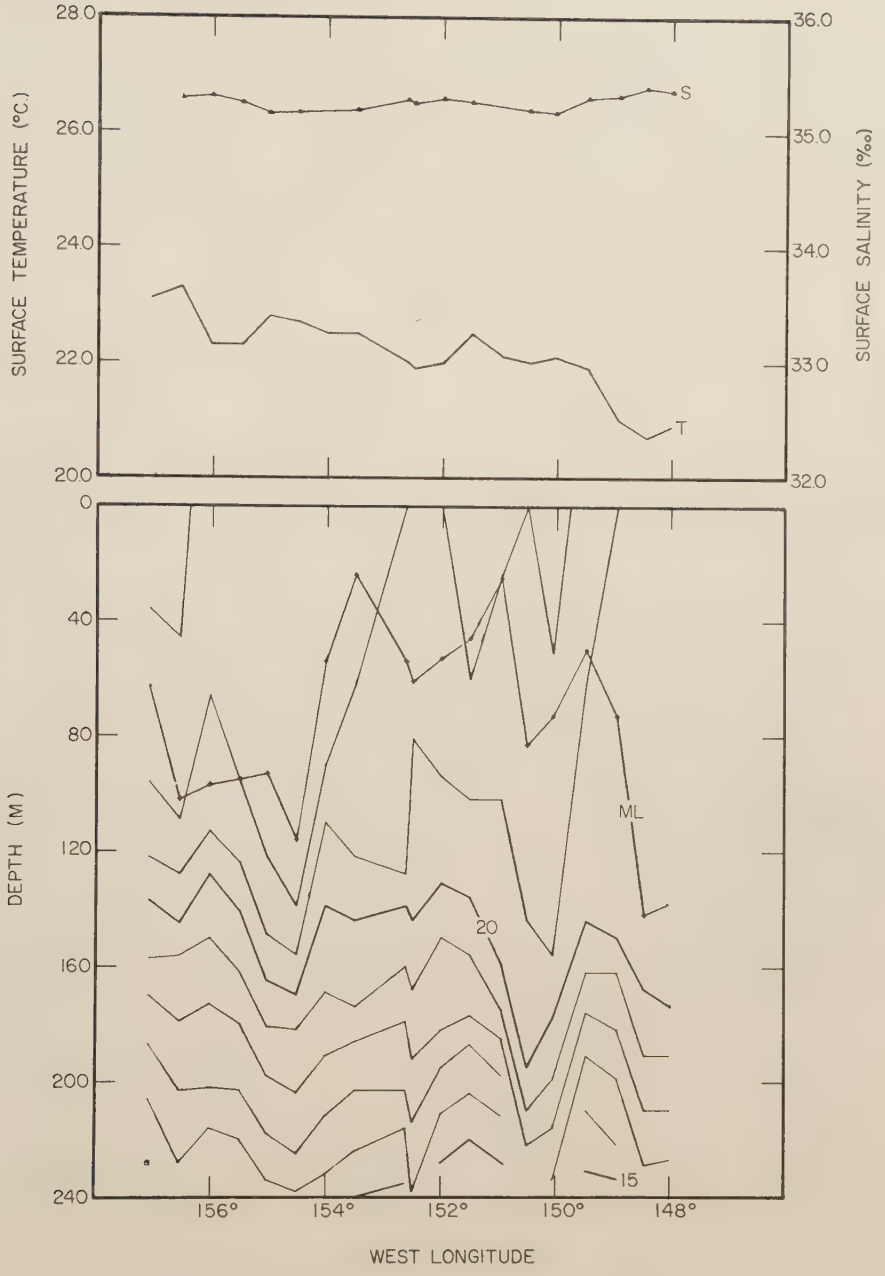


Figure 12.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and zonal BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 2 between stations 7 and 8, 25 and 26. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.



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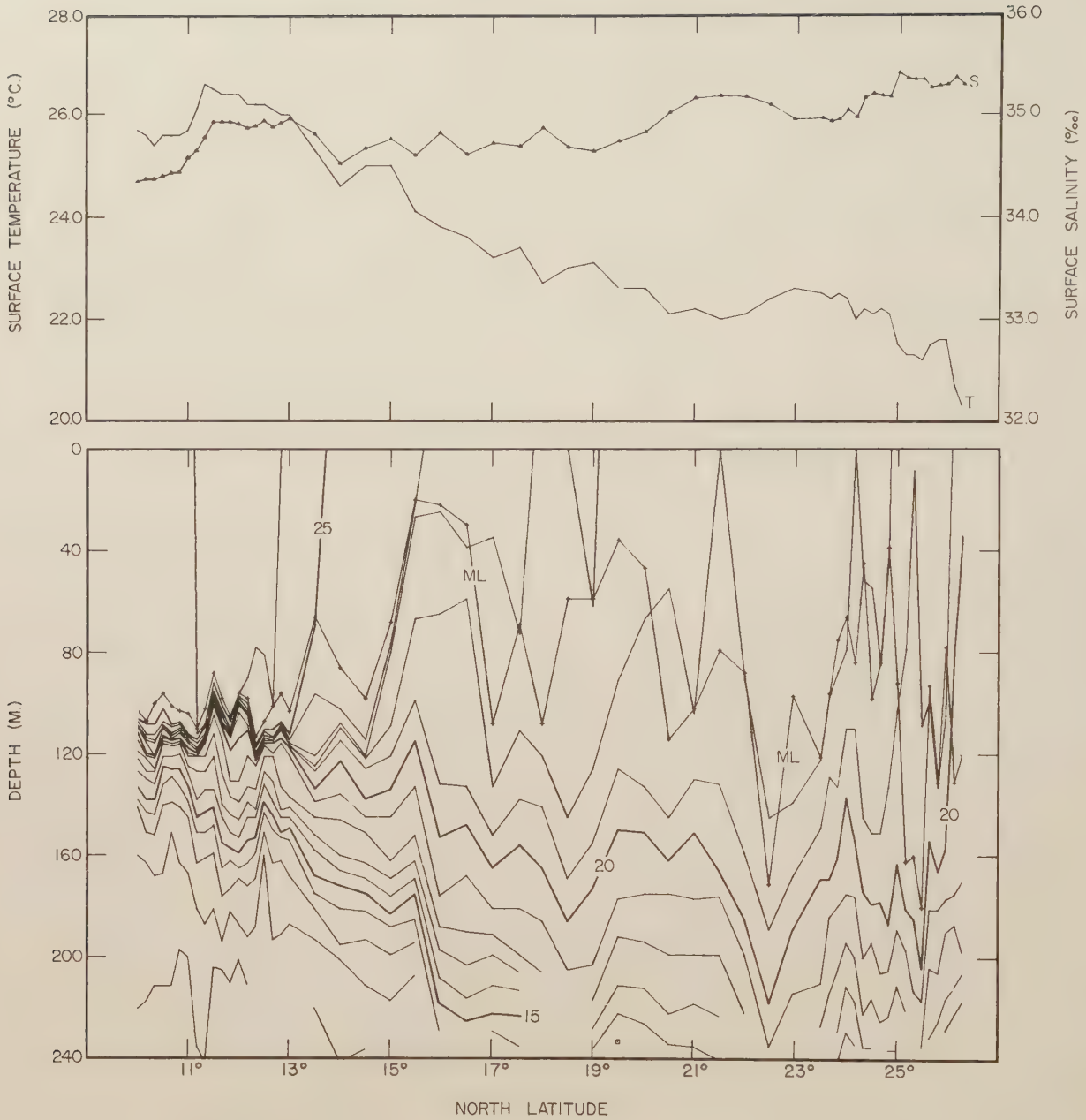

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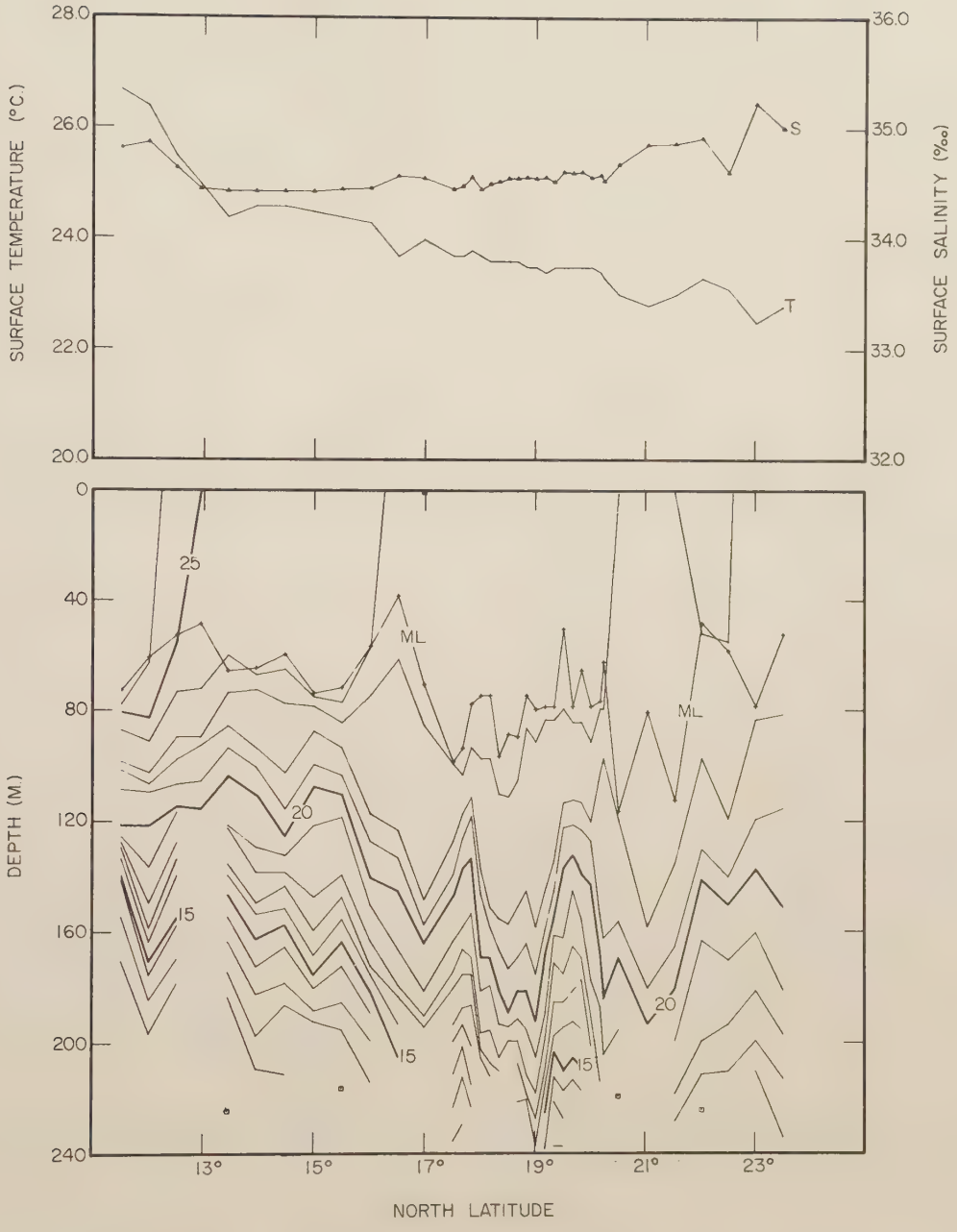

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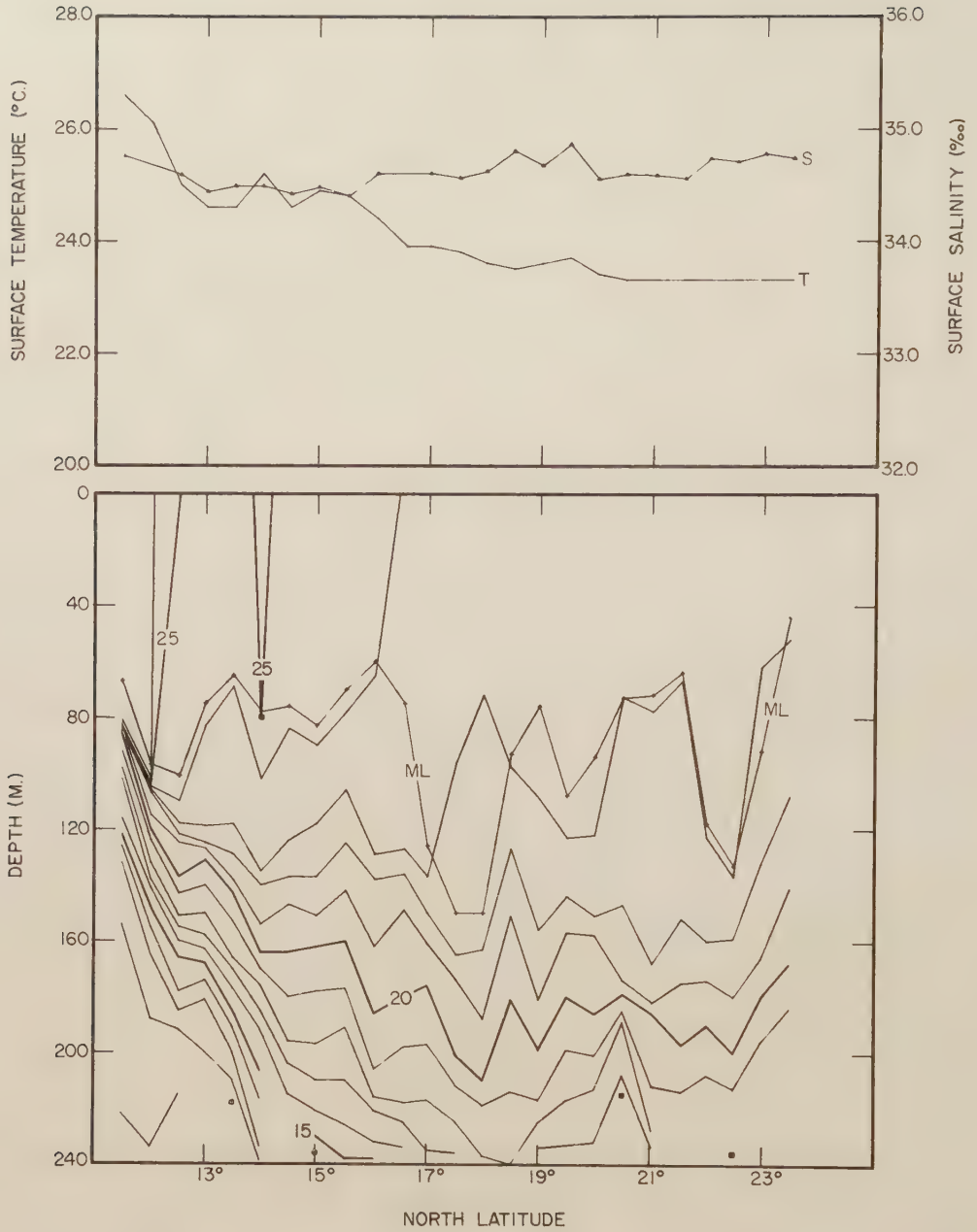


Figure 16.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 3 along long. 154° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

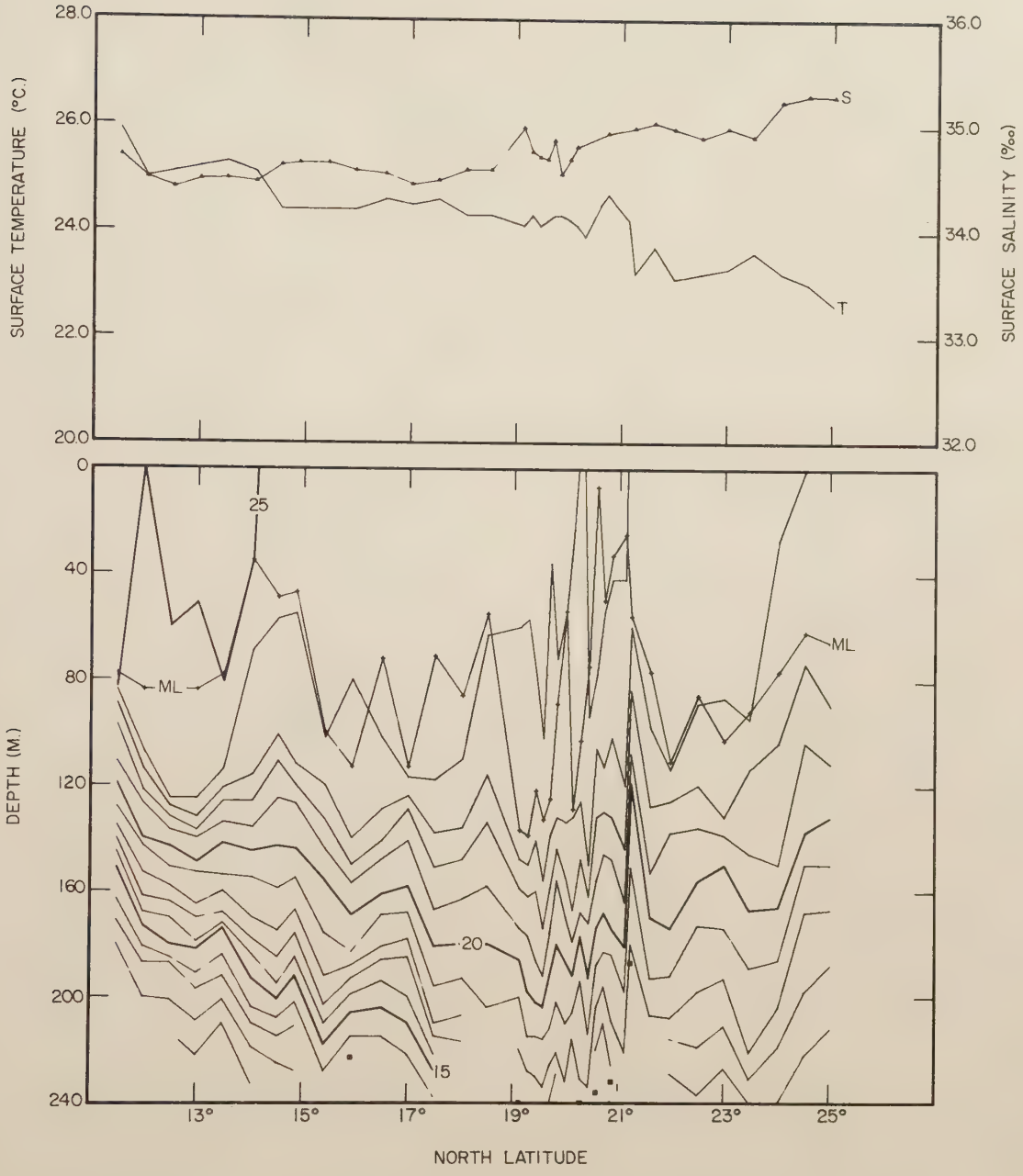


Figure 17.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 3 along long. 157° W. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

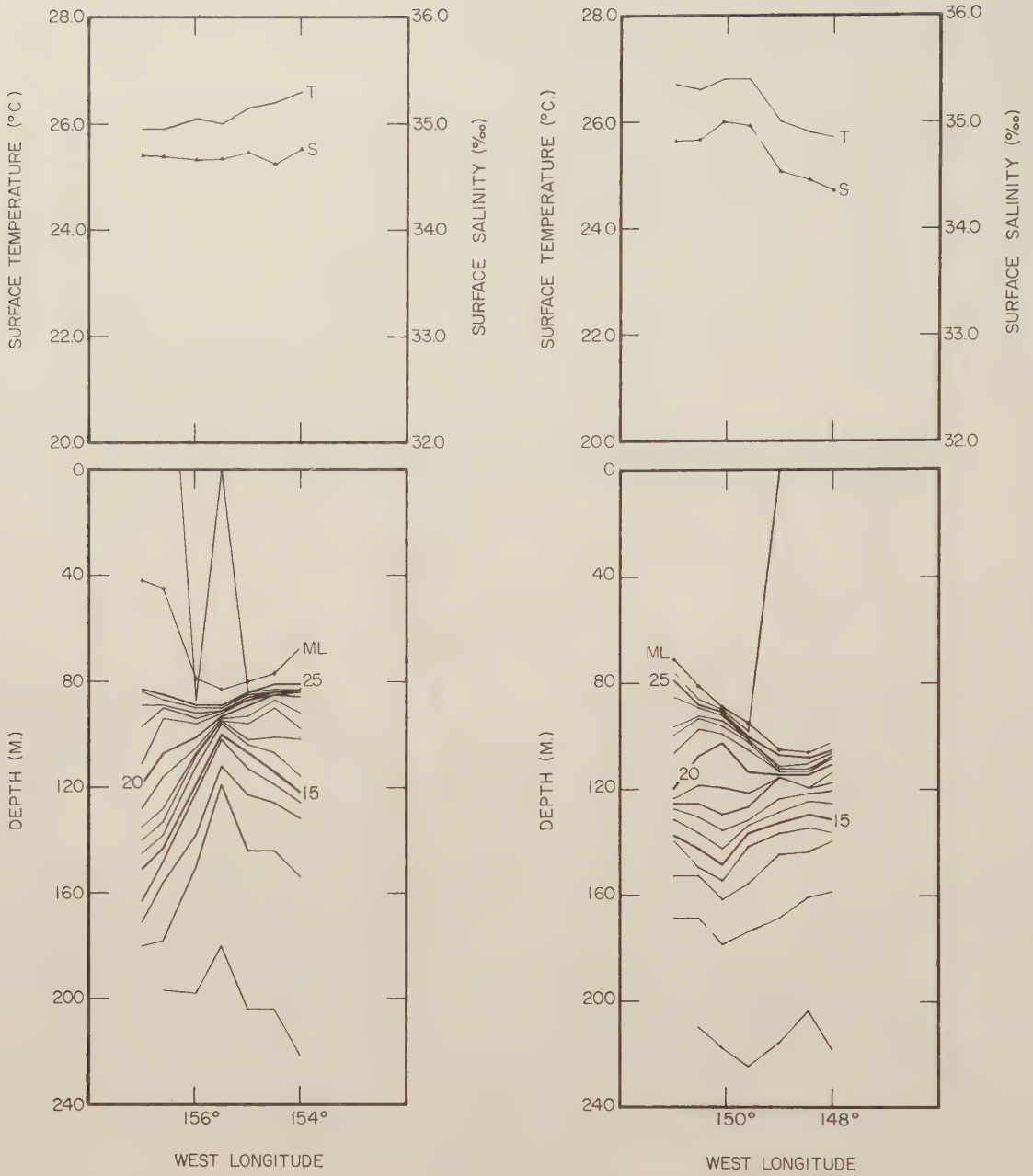


Figure 18.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and zonal BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 3 between stations 7 and 8, 25 and 26. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

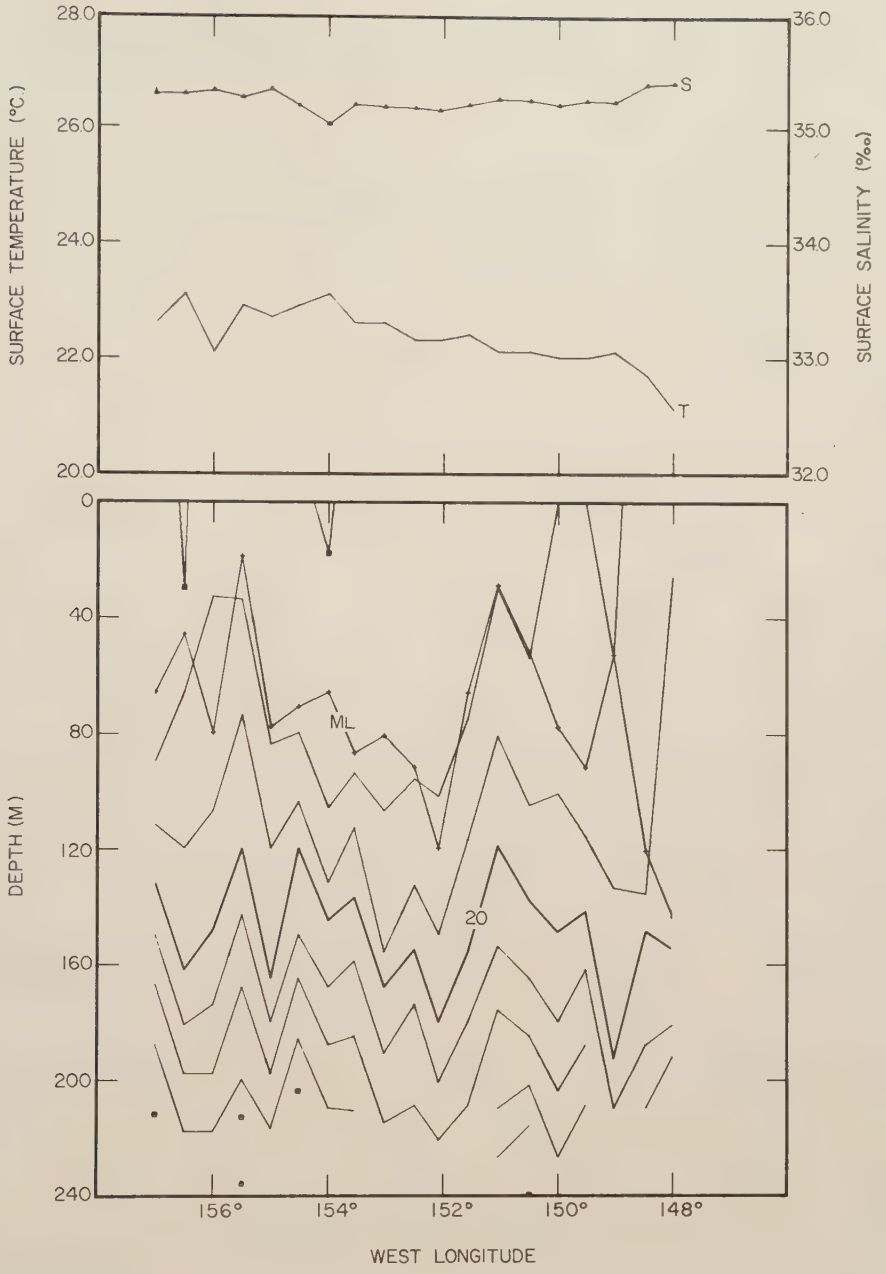


Figure 19.--Surface temperatures (° C.) and salinities (°/oo) (upper panel) and zonal BT temperature (° C.) section (lower panel) for Townsend Cromwell cruise 3 between stations 37 and 40. The bottom of the ML (mixed layer) is shown by the starred line in the lower panel.

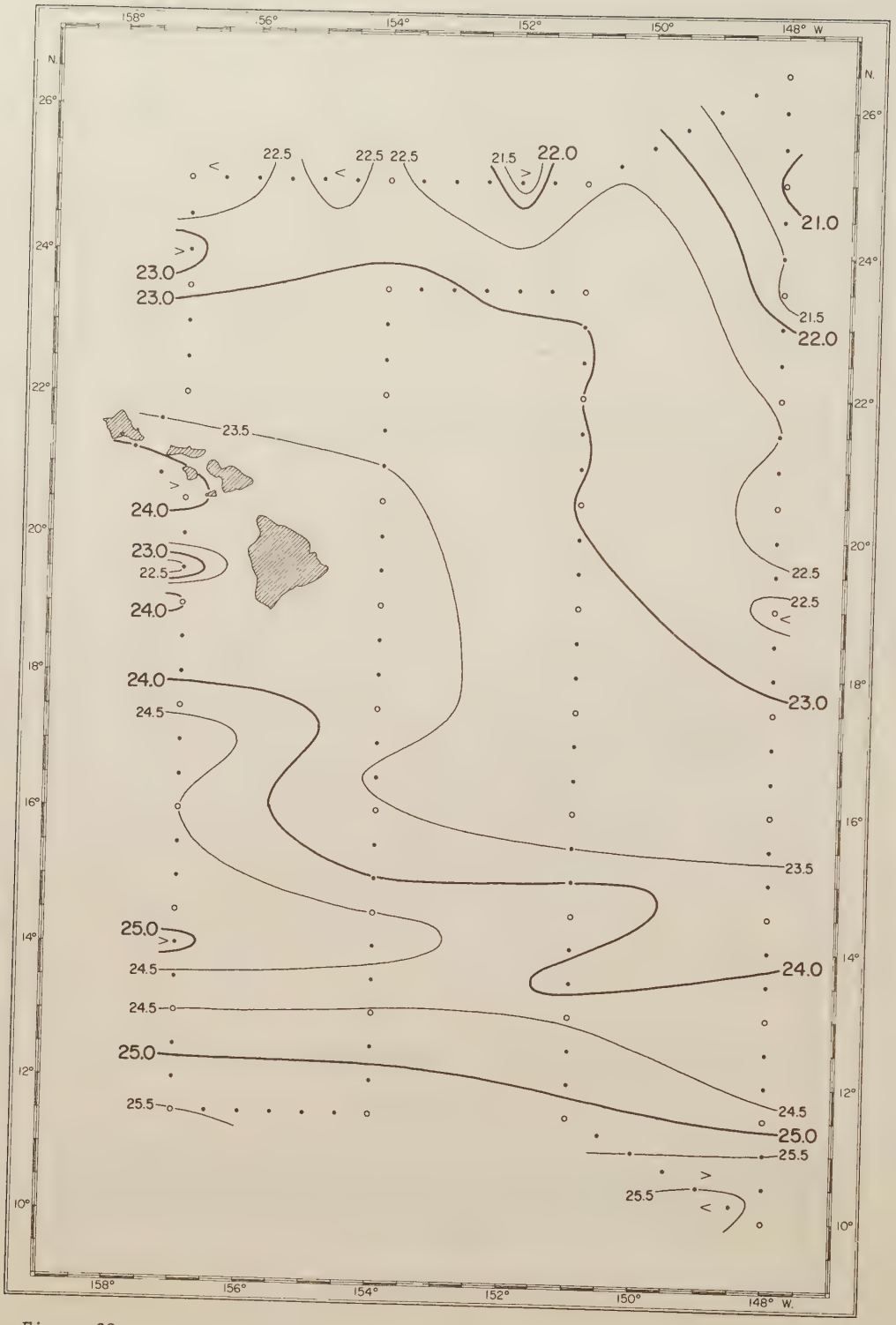


Figure 20.--Surface temperature distribution (° C.) based on bucket temperature at each BT cast for Townsend Cromwell cruise 1.

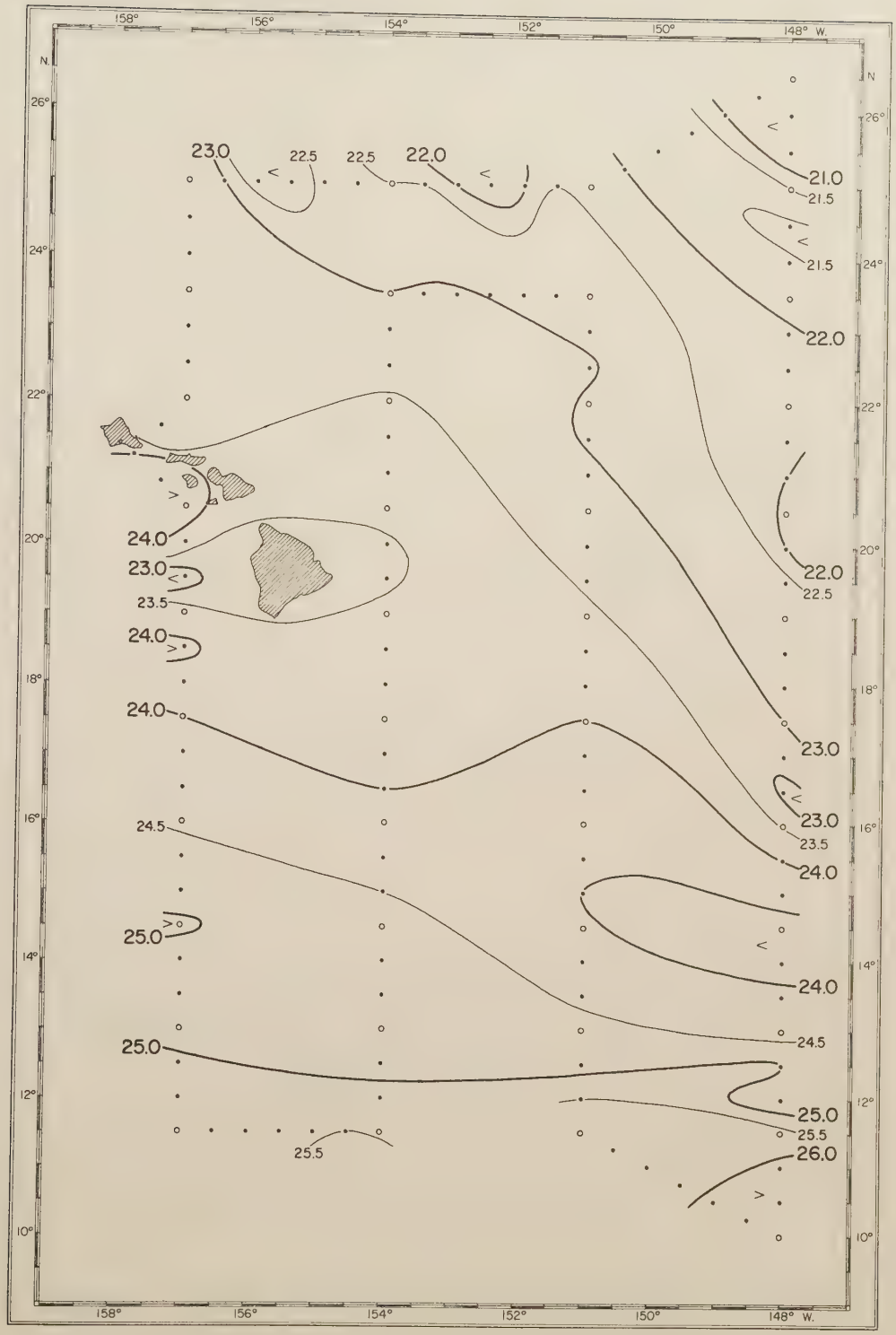


Figure 21.--Surface temperature distribution (° C.) based on bucket temperature at each BT cast for Townsend Cromwell cruise 2.

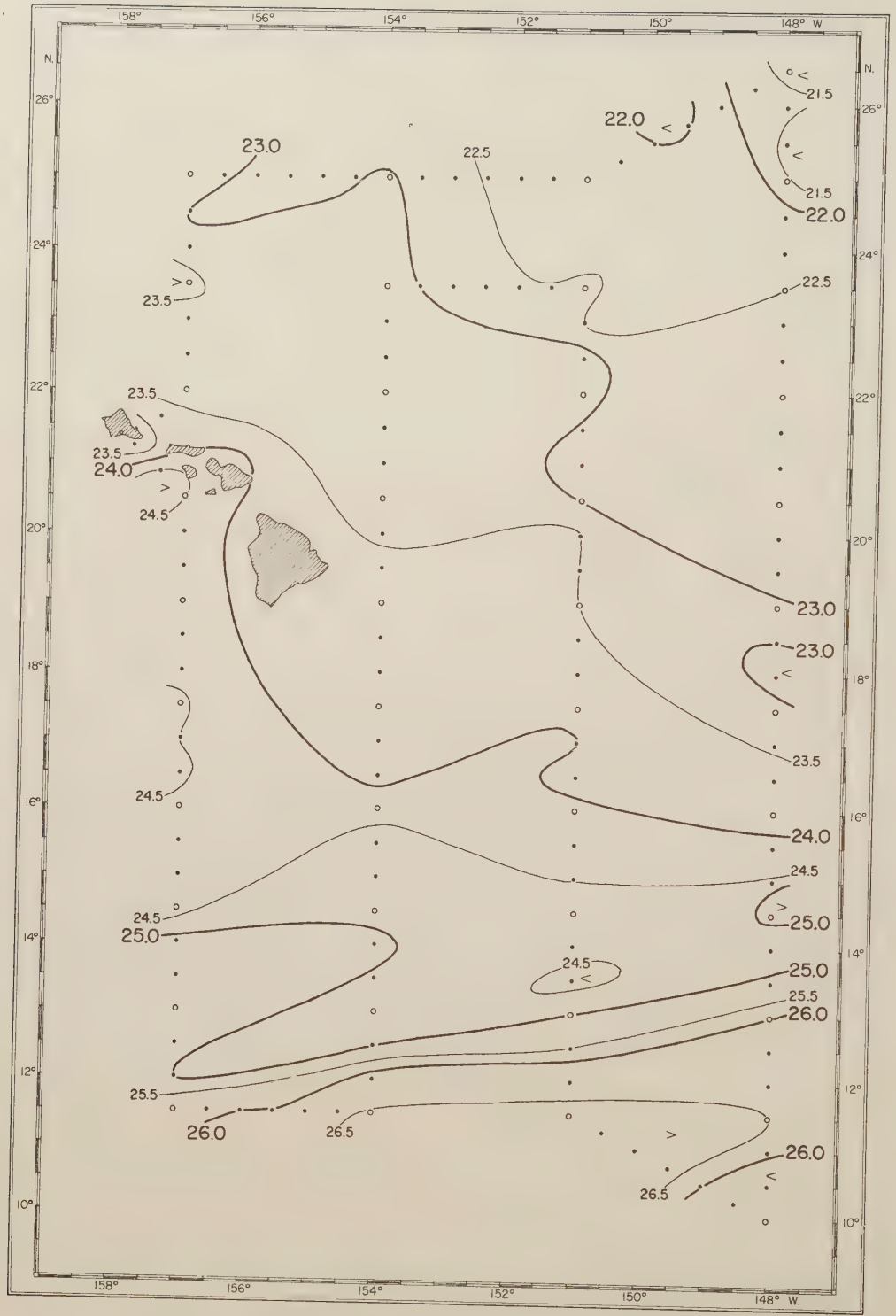


Figure 22.--Surface temperature distribution (° C.) based on bucket temperature at each BT cast for Townsend Cromwell cruise 3.

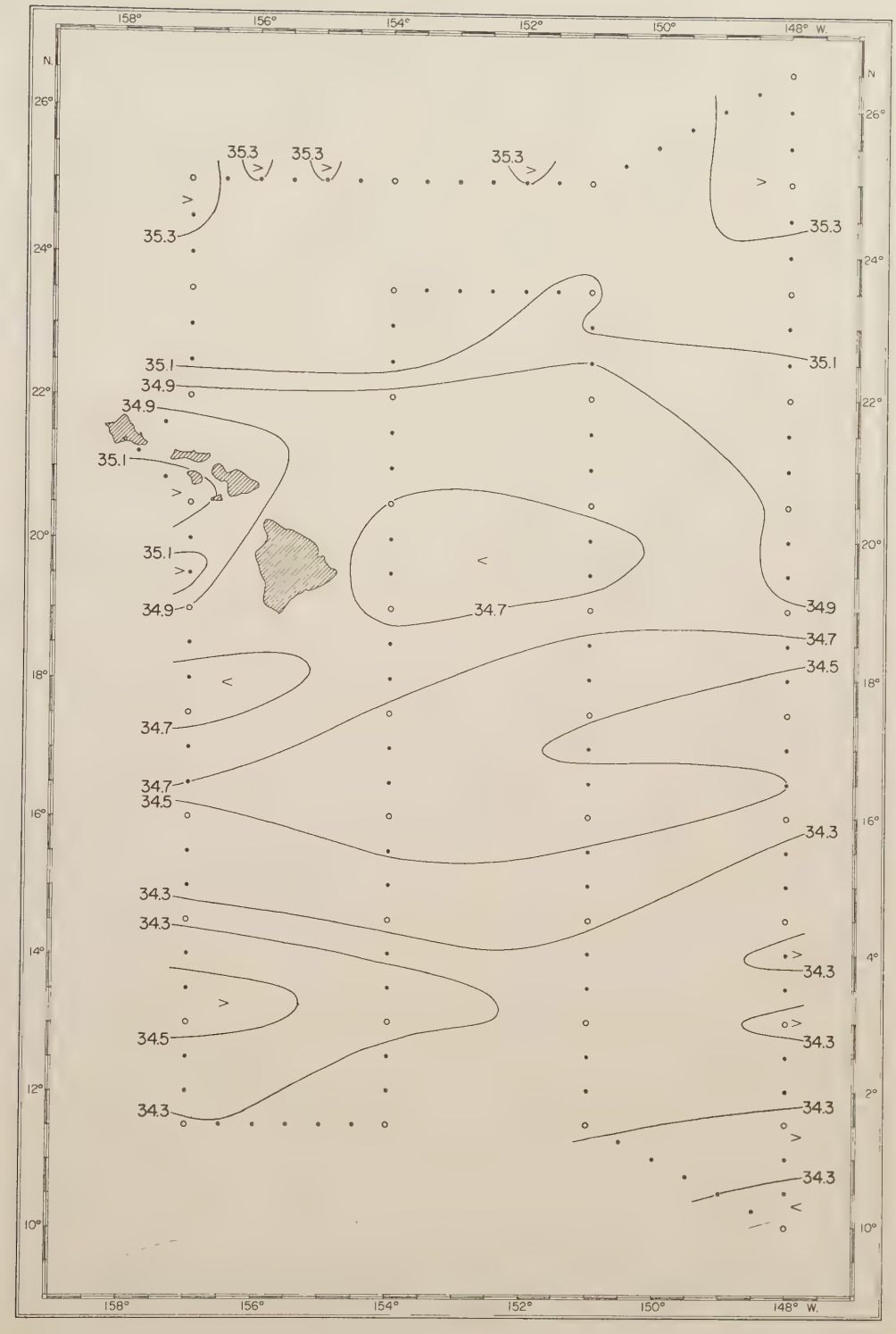


Figure 23.--Surface salinity distribution (°/oo) from bucket salinity samples at each BT cast for Townsend Cromwell cruise 1.

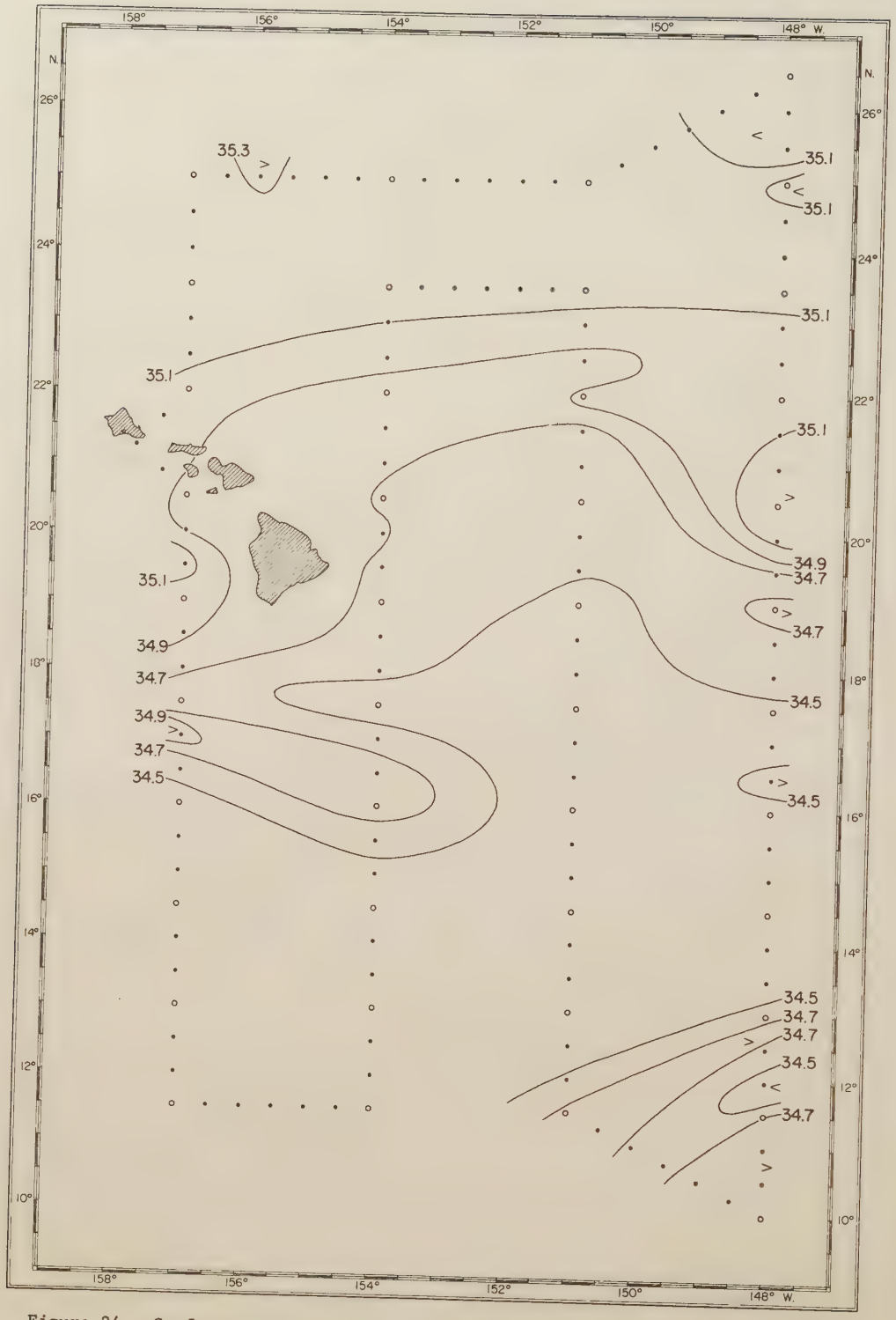


Figure 24.--Surface salinity distribution (°/oo) from bucket salinity samples at each BT cast for Townsend Cromwell cruise 2.

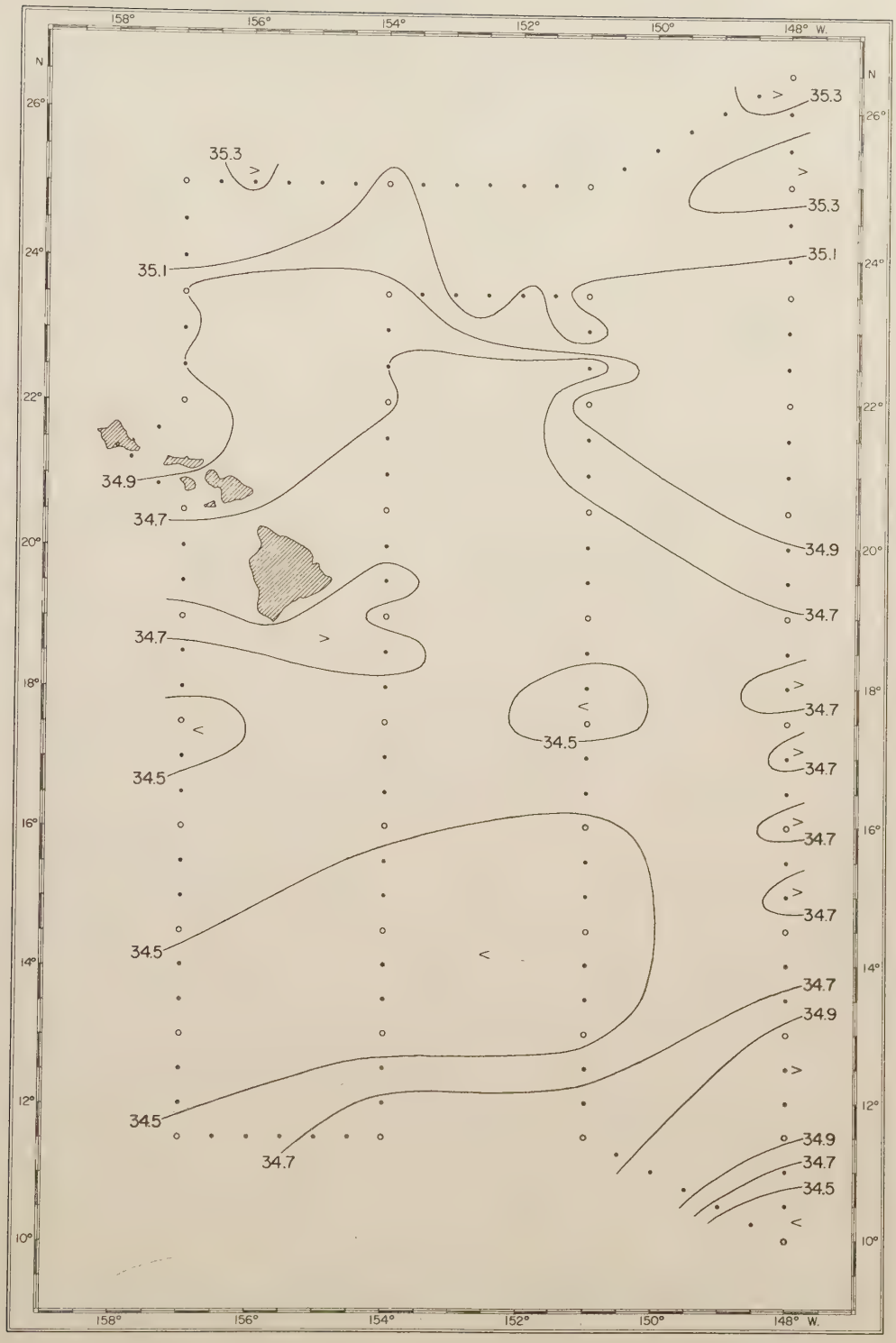
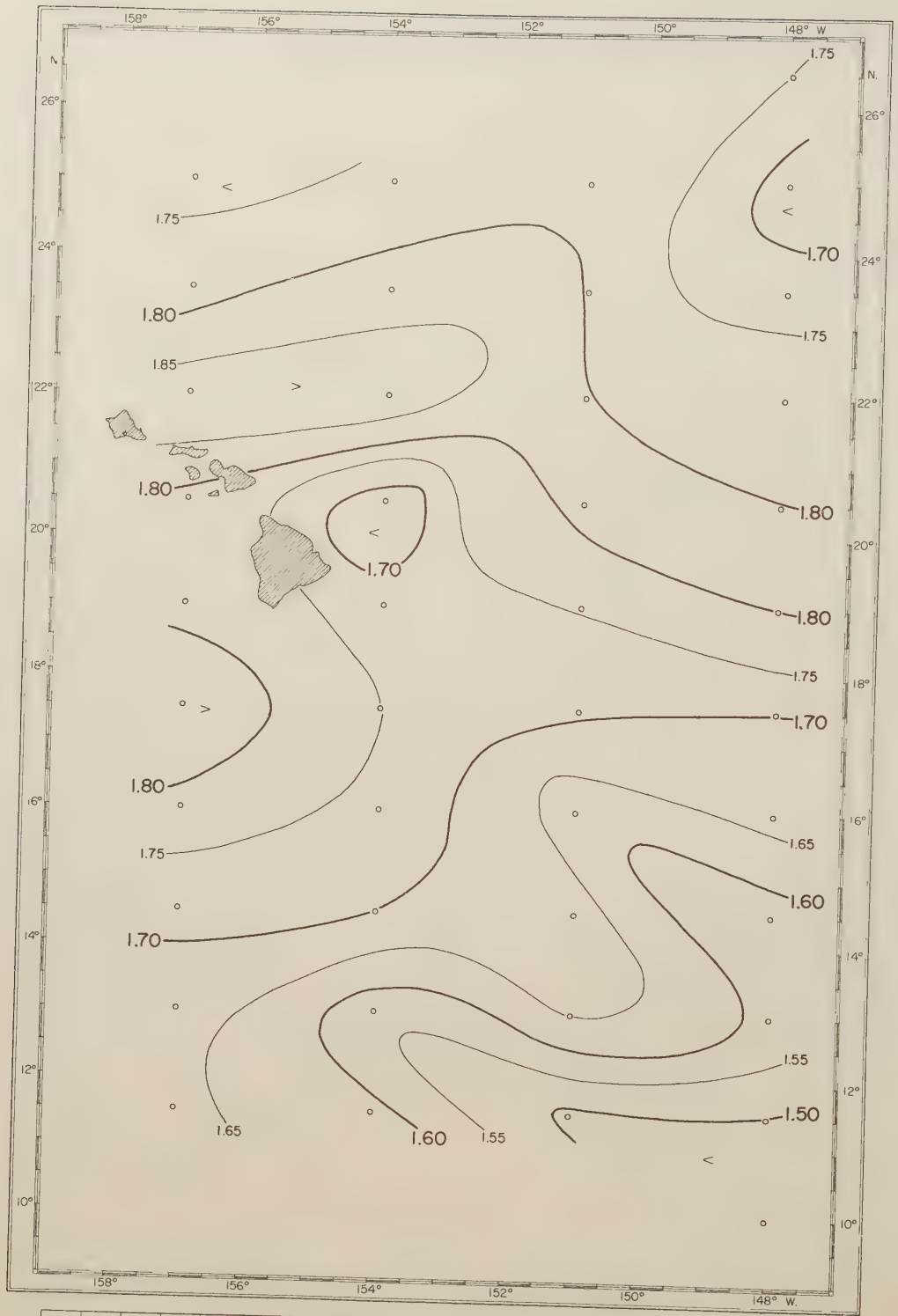


Figure 25.--Surface salinity distribution (°/oo) from bucket salinity samples at each BT cast for Townsend Cromwell cruise 3.



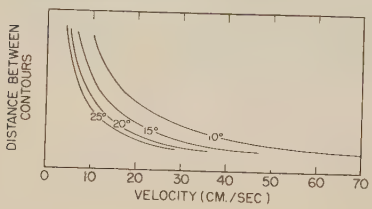
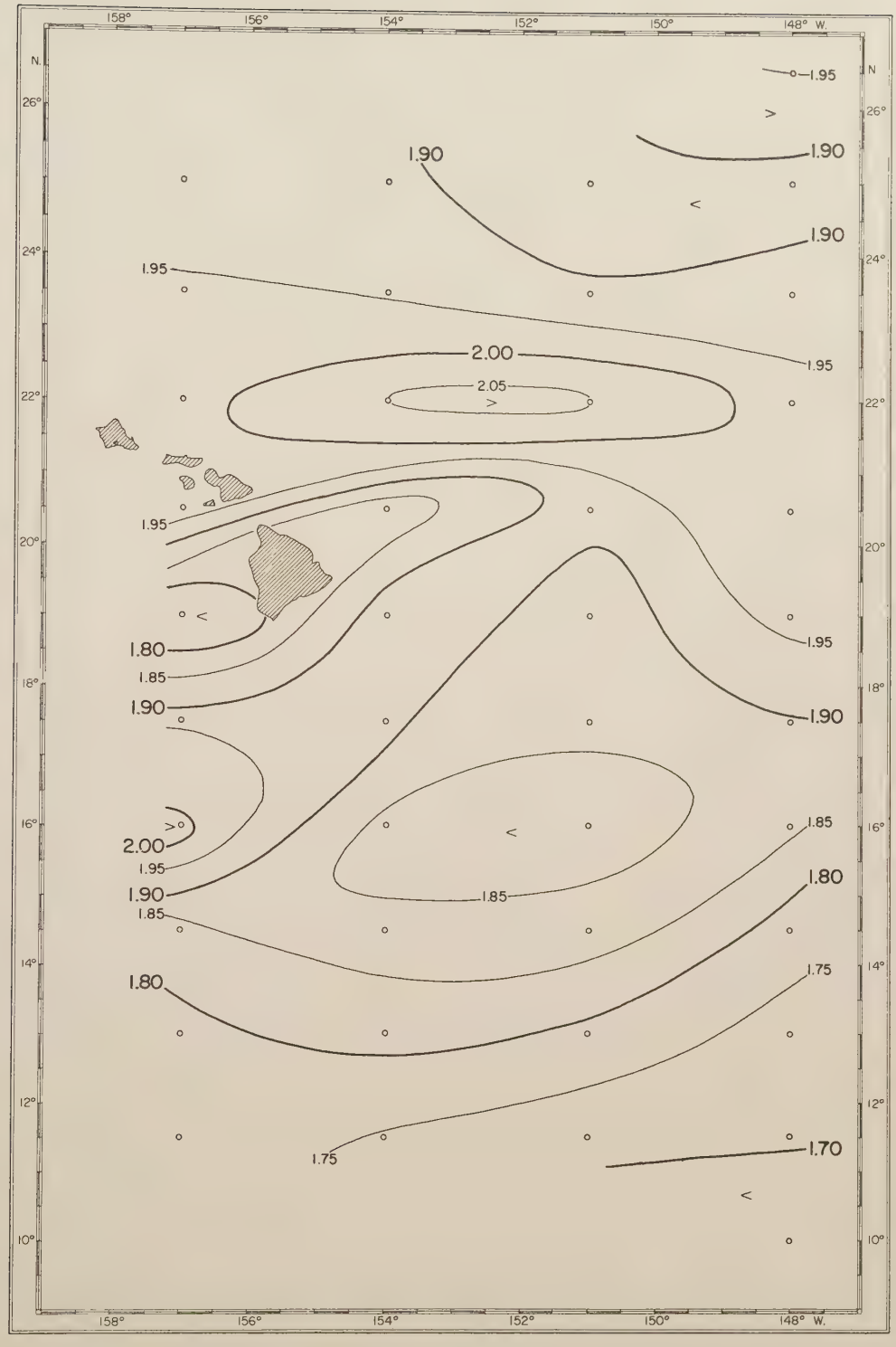


Figure 26.--Dynamic topography (dynamic meters) relative to 1,000 m. for Townsend Cromwell cruise 1.



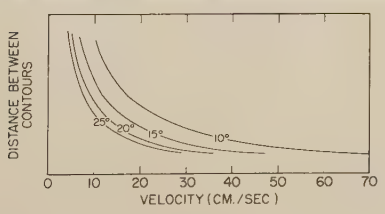
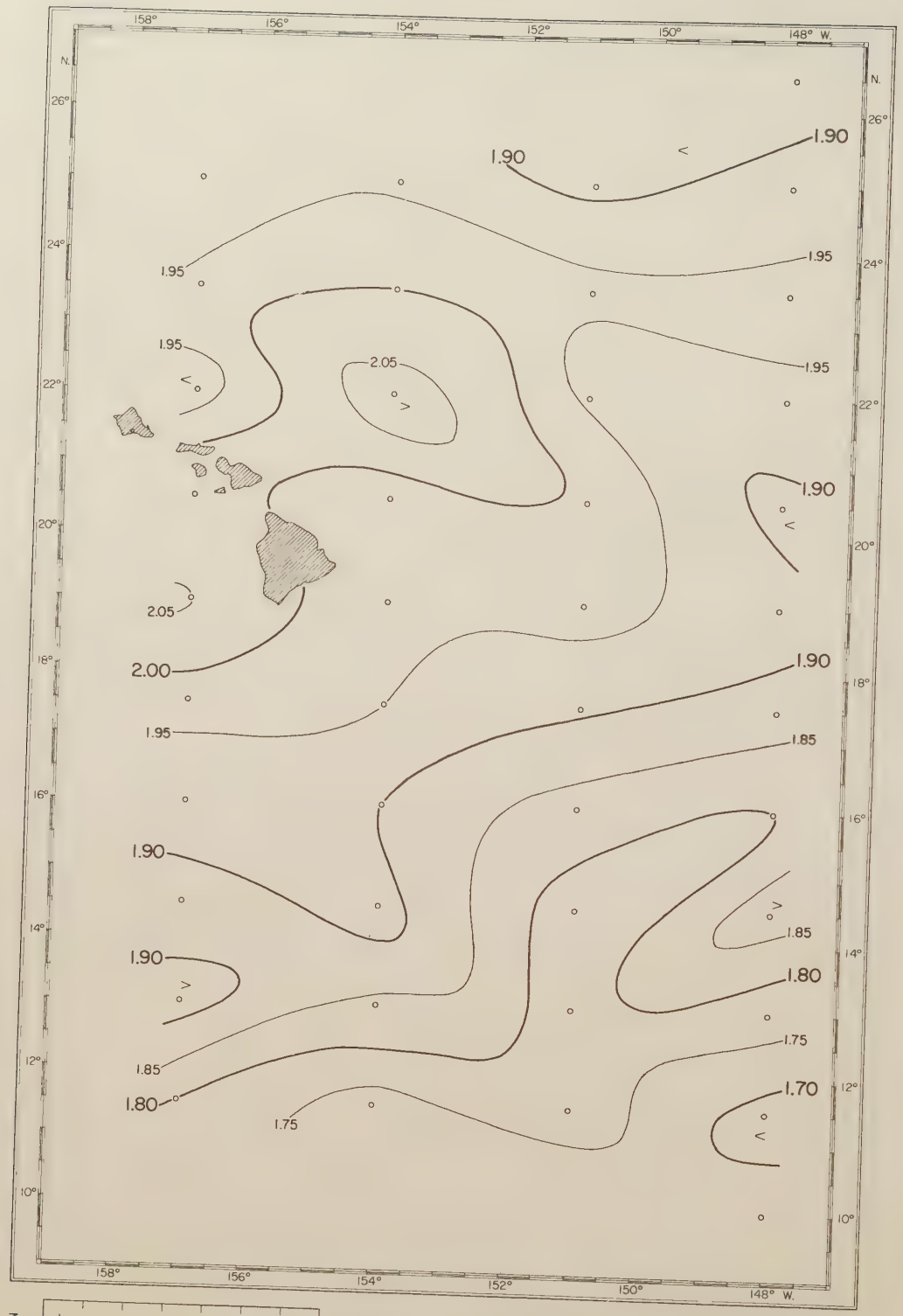


Figure 27.--Dynamic topography (dynamic meters) relative to 1,200 m. for Townsend Cromwell cruise 2.



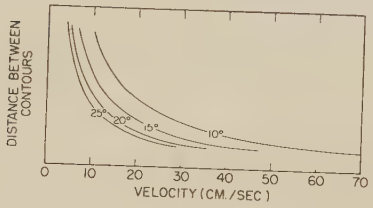


Figure 28.--Dynamic topography (dynamic meters) relative to 1,200 m. for Townsend Cromwell cruise 3.

TABLES

Information printed in the station heading has the following units or coding. Latitude and longitude are in degrees and minutes. Wet and dry bulb temperatures are in degrees Celsius. Wind speed is in knots. Barometric pressure is in tens and units of millibars (initial 9 or 10 omitted). Wind direction, weather, visibility, cloud type, and cloud cover are coded in the manner described by the International Ship Weather Code.

The observed data are presented in the following units: Depth in meters; temperature in degrees Celsius; salinity in grams per kilogram; oxygen in milliliters per liter; and phosphate (PO_4-P) in microgram-atoms per liter.

The derived data are listed with the following units: Density anomaly as sigma-t; specific volume anomaly (delta) in 10^5 cubic centimeters per gram; and dynamic depth anomaly (dyn. dpth.) in dynamic meters.

Table 1.--Original and derived oceanographic data for Townsend Cromwell cruise 1

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 1, 20-35N LAT, 157-16W LONG, FEB. 15, 1964, 2100 G.C.T.
DRY BULB 24.5 WET BULB 20.1 WIND SPEED 15, DIR. 08 BAR. 19 WEATHER 00 VIS. 8 CLOUD TYPE 8, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.34	34.99			23.55	434.6	0.	24.34	34.99	23.55	434.6	0.000
11.	24.32	35.00			23.57	433.7	10.	24.32	35.00	23.57	433.8	0.044
30.Δ	24.30	35.04			23.60	431.0	20.	24.31	35.02	23.58	432.4	0.088
50.	24.29	35.07			23.63	429.3	30.	24.30	35.04	23.60	431.0	0.131
75.	23.88	35.19			23.84	410.0	50.	24.29	35.07	23.63	429.3	0.218
101.	22.77	35.14			24.13	383.8	75.	23.88	35.19	23.84	410.0	0.324
126.	21.78	35.12			24.39	359.5	100.	22.82	35.14	24.11	384.9	0.424
150.	20.16	35.06			24.78	322.6	150.	20.16	35.06	24.78	322.6	0.602
176.	18.98	34.96			25.01	301.3	200.	17.10	34*77	25.33	271.5	0.752
201.	17.02	34.76			25.34	270.4	250.	13.92	34.42	25.77	229.9	0.878
226.	15.66	34.59			25.53	253.2	300.	11.70	34.23	26.07	202.3	0.987
250.	13.92	34.42			25.77	229.9	400.	8.18	34.17	26.62	150.1	1.165
275.	12.47	34.28			25.96	212.4	500.	6.70	34.21	26.86	127.4	1.305
300.	11.70	34.23			26.07	202.3	600.	5.83	34.32	27.06	108.9	1.424
400.	8.18	34.17			26.62	150.1	700.	5.26	34.40	27.19	96.8	1.528
500.	6.70	34.21			26.86	127.4	800.	4.84	34.46	27.29	88.2	1.622
600.	5.83	34.32			27.06	108.9	1000.	4.05	34.53	27.43	75.3	1.787
800.	4.84	34.46			27.29	88.2	1200.	3.45	34.56	27.51	67.5	1.932
1000.	4.05	34.53			27.43	75.3						
1200.	3.45	34.56			27.51	67.5						
1426.	2.85	34.60			27.60	59.0						

CROMWELL 1, STATION 2, 19- 1N LAT, 156-57W LONG, FEB. 16, 1964, 1000 G.C.T.
DRY BULB 24.0 WET BULB 20.0 WIND SPEED 31, DIR. 06 BAR. 17 WEATHER 00 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.36	34.79			23.40	449.5	0.	24.36	34.79	23.40	449.5	0.000
23.Δ	24.36	34.87			23.46	444.7	10.	24.37	34.83	23.43	447.0	0.045
30.Δ	24.35	34.88			23.47	443.9	20.	24.36	34.86	23.45	445.1	0.090
41.Δ	24.33	34.91			23.50	441.6	30.	24.35	34.88	23.47	443.9	0.135
50.Δ	24.34	34.95			23.52	439.4	50.	24.34	34.95	23.52	439.4	0.224
64.	24.35	35.01			23.57	435.9	75.	24.26	35.09	23.65	428.0	0.333
75.Δ	24.26	35.09			23.65	428.0	100.	23.92	35.19	23.83	412.3	0.439
92.	23.94	35.18			23.82	413.1	150.	20.60	35.08	24.68	332.5	0.627
112.	23.72	35.18			23.88	407.7	200.	16.86	34.74	25.37	268.0	0.778
137.	21.50	35.11			24.46	353.2	250.	12.71	34.29	25.92	215.4	0.900
159.	20.02	35.05			24.81	320.1	300.	10.29	34.12	26.24	185.5	1.001
194.	17.58	34.83			25.26	278.0	400.	7.50	34.07	26.64	147.5	1.169
202.	16.61	34.71			25.40	264.7	500.	6.39	34.23	26.91	121.9	1.305
246.	12.93	34.31			25.89	218.2	600.	5.49	34.34	27.12	103.1	1.419
447.	7.13	34.18			26.78	134.8	700.	4.96	34.43	27.25	90.5	1.516
639.	5.31	34.39			27.18	97.5	800.	4.69	34.46	27.31	86.2	1.606
710.	4.91	34.44			27.26	89.6	1000.	4.00	34.54	27.44	74.0	1.768
778.	4.73	34.45			27.29	87.4						
821.	4.63	34.47			27.32	85.1						
845.	4.51	34.47			27.33	83.9						
868.	4.43	34.48			27.35	82.4						
875.	4.39	34.49			27.36	81.2						
1048.	3.94	34.53			27.44	74.4						

TEMPERATURE ERROR TERM AT 300. METERS IS 0.46
SALINITY ERROR TERM AT 300. METERS IS 0.08
TEMPERATURE ERROR TERM AT 400. METERS IS 0.42
SALINITY ERROR TERM AT 400. METERS IS 0.07

CROMWELL 1, STATION 3, 17-29N LAT, 157- 0W LONG, FEB. 16, 1964, 2300 G.C.T.
DRY BULB 24.0 WET BULB 20.9 WIND SPEED 25, DIR. 05 BAR. 16 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.15	34.58			23.30	458.7	0.	24.15	34.58	23.30	458.7	0.000
9.	24.14	34.58			23.30	458.8	10.	24.14	34.58	23.30	458.8	0.047
50.Δ	24.14	34.58			23.30	460.4	20.	24.14	34.58	23.30	459.1	0.093
65.	24.14	34.58			23.30	460.9	30.	24.14	34.58	23.30	459.5	0.139
75.Δ	24.14	34.58			23.30	461.3	50.	24.14	34.58	23.30	460.4	0.232
92.	24.14	34.57			23.30	462.7	75.	24.14	34.58	23.30	461.3	0.348
100.Δ	24.14	35.13			23.72	422.7	100.	24.14	35.13	23.72	422.7	0.459
115.	24.14	35.13			23.72	423.3	150.	21.99	35.14	24.35	364.6	0.658
142.	22.37	35.13			24.23	375.2	200.	18.00	34.85	25.18	286.3	0.822
165.	21.16	35.13			24.57	343.8	250.	15.00	34.50	25.61	246.4	0.956
189.	18.78	34.94			25.05	298.4	300.	10.61	34.17	26.22	187.5	1.065
212.	17.28	34.76*			25.28	276.7	400.	8.05	34.18	26.64	147.7	1.235
241.	15.80	34.57			25.48	258.2	500.	6.72	34.30	26.93	120.7	1.370
296.	10.81	34.18			26.19	190.1	600.	5.93	34.37	27.09	106.3	1.485
395.	8.14	34.17			26.62	149.4	700.	5.39	34.43	27.20	96.4	1.587
485.	6.87	34.29			26.90	123.6	800.	4.97	34.48	27.28	88.7	1.681
595.	5.96	34.37			27.08	106.9	1000.	4.15	34.55	27.43	75.1	1.847
789.	5.02	34.47			27.27	89.6						
904.	4.52	34.52			27.37	80.9						
1006.	4.13	34.55			27.44	74.8						
1181.	3.66	34.57			27.50	69.1						

TEMPERATURE ERROR TERM AT 250. METERS IS 0.12

ΔFROM BT DATA
*INTERPOLATED VALUE

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 4, 16- ON LAT, 156-59W LONG, FEB. 17, 1964, 1200 G.C.T.
DRY BULB 24.0 WET BULB 20.0 WIND SPEED 30, DIR. 05 BAR. 15 WEATHER 00 VIS. 7 CLOUD TYPE , COVER

OBSERVED DATA REJECTED DUE TO EQUIPMENT FAILURE

CROMWELL 1, STATION 5, 14-29N LAT, 156-56W LONG, FEB. 17, 1964, 2300 G.C.T.
DRY BULB 24.0 WET BULB 21.1 WIND SPEED 24, DIR. 07 BAR. 12 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	CXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.74	**34.27**			22.89	497.9	0.	24.74	34.27	22.89	497.9	0.000
10.	24.78	**34.28**			22.89	498.7	10.	24.78	34.28	22.89	498.7	0.051
30.Δ	24.72	34.34			22.95	493.4	20.	24.76	34.31	22.91	496.5	0.101
50.Δ	24.66	34.37			22.99	490.3	30.	24.72	34.34	22.95	493.4	0.151
75.Δ	24.50	34.42			23.08	483.1	50.	24.66	34.37	22.99	490.3	0.250
105.	24.24	34.49			23.21	471.8	75.	24.50	34.42	23.08	483.1	0.372
129.	18.90	34.80			24.91	309.4	100.	24.53	34.47	23.10	481.7	0.494
159.	14.79	34.45			25.61	243.0	150.	15.74	34.59	25.51	252.9	0.679
183.	13.36	34.33			25.82	223.5	200.	12.20	34.26	25.99	207.1	0.795
208.	11.66	34.23			26.07	199.4	250.	9.93	34.29	26.43	166.5	0.889
233.	10.28	34.19			26.29	178.9	300.	9.14	34.43	26.67	144.1	0.967
262.	9.82	34.37			26.51	158.6	400.	7.96	34.48	26.89	124.0	1.103
277.	9.59	34.42			26.59	151.5	500.	7.30	34.52	27.02	113.1	1.222
311.	8.92	34.42			26.70	141.4	600.	6.67	34.52	27.11	105.5	1.333
413.	7.88	34.49			26.91	122.2	700.	6.04	34.52	27.19	98.0	1.436
514.	7.22	34.52			27.03	112.0	800.	5.45	34.53	27.27	90.9	1.531
615.	6.58	34.52			27.12	104.5	1000.	4.54	34.54	27.38	80.7	1.705
814.	5.37	34.53			27.28	90.0	1200.	3.81	34.57	27.48	71.3	1.859
1018.	4.47	34.54			27.39	79.9	1500.	3.09	34.64	27.61	59.1	2.057
1212.	3.77	34.57			27.49	70.7						
1515.	3.07	**34.65**			27.62	58.5						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.16

CROMWELL 1, STATION 6, 13- ON LAT, 157- OW LONG, FEB. 18, 1964, 1300 G.C.T.
DRY BULB 24.0 WET BULB 21.2 WIND SPEED 24, DIR. 06 BAR. 14 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	CXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.58	**34.63**			23.21	467.4	0.	24.58	34.63	23.21	467.4	0.000
11.	24.57	**34.63**			23.21	467.5	10.	24.57	34.63	23.21	467.5	0.048
51.	24.58	34.63			23.21	469.4	20.	24.57	34.63	23.21	467.9	0.095
75.Δ	24.57	34.63			23.21	470.0	30.	24.57	34.63	23.21	468.3	0.142
76.	24.58	34.63			23.21	470.3	50.	24.58	34.63	23.21	469.3	0.236
105.	20.96	35.12			24.62	337.1	75.	24.57	34.63	23.21	470.0	0.355
131.	19.28	34.96			24.94	307.2	100.	21.79	35.03	24.32	365.4	0.460
171.	14.84	34.44			25.59	245.1	150.	17.60	34.69	25.15	287.0	0.624
185.	12.20	34.42			26.12	194.8	200.	11.61	34.46	26.26	181.7	0.742
210.	11.66	34.50			26.28	179.7	250.	10.58	34.61	26.56	153.7	0.827
225.	10.87	34.56			26.48	161.6	300.	10.20	34.64	26.66	145.9	0.902
265.	10.62	34.62			26.57	153.7	400.	9.17	34.61	26.81	132.8	1.043
280.	10.43	34.64			26.62	149.3	500.	8.13	34.58	26.94	120.9	1.171
314.	10.04	34.63			26.68	144.2	600.	7.15	34.55	27.06	110.5	1.288
419.	8.98	34.61			26.84	130.5	700.	6.29	34.53	27.17	100.9	1.395
522.	7.90	34.57			26.97	118.5	800.	5.55	34.53	27.26	92.4	1.493
625.	6.93	34.54			27.09	108.1	1000.	4.62	34.55	27.39	80.6	1.668
827.	5.38	34.53			27.28	90.3	1200.	3.95	34.57	27.47	73.0	1.823
1036.	4.50	34.56			27.40	79.0	1500.	3.13	34.60	27.57	63.1	2.030
1235.	3.85	**34.57**			27.48	71.9						
1542.	3.04	**34.60**			27.58	62.0						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.22
TEMPERATURE ERROR TERM AT 200. METERS IS 0.25
TEMPERATURE ERROR TERM AT 250. METERS IS 0.12

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 7, 11-32N LAT, 156-58W LONG, FEB. 18, 1964, 2300 G.C.T.
DRY BULB 25.5 WET BULB 22.7 WIND SPEED 18, DIR. 07 BAR. 12 WEATHER 02 VIS. CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.47	34.25			22.65	520.5	0.	25.47	34.25	22.65	520.5	0.000
1.	25.44	34.25			22.66	519.7	10.	25.38	34.25	22.68	518.4	0.053
20.Δ	25.46	34.25			22.66	521.0	20.	25.46	34.25	22.66	521.0	0.105
40.	25.41	34.25			22.67	520.4	30.	25.44	34.25	22.66	520.9	0.158
50.Δ	25.40	34.26			22.68	519.7	50.	25.40	34.26	22.68	519.7	0.262
76.	24.44	34.56			23.20	471.4	75.	24.52	34.55	23.17	474.5	0.388
106.	19.85	34.81			24.68	331.3	100.	20.82	34.78	24.39	358.2	0.493
139.	17.56	34.74			25.20	282.2	150.	14.91	34.58	25.68	236.0	0.642
160.	12.63	34.45			26.06	200.1	200.	11.46	34.72	26.49	159.8	0.742
186.	11.73	34.62			26.36	171.6	250.	10.82	34.71	26.60	150.1	0.820
202.	11.43	34.73			26.51	158.5	300.	10.17	34.69	26.70	141.9	0.894
237.	10.93	34.71			26.58	151.9	400.	9.17	34.65	26.84	130.3	1.031
266.	10.66	34.71			26.63	147.8	500.	8.26	34.60	26.94	121.4	1.158
282.	10.40	34.69			26.66	145.2	600.	7.38	34.57	27.05	111.8	1.276
317.	9.98	34.69			26.73	138.9	700.	6.51	34.56	27.16	102.0	1.384
413.	9.06	34.64			26.85	129.4	800.	5.74	34.55	27.25	93.2	1.483
527.	8.02	34.59			26.97	118.9	1000.	4.68	34.56	27.38	81.0	1.659
623.	7.18	34.57			27.08	109.5	1200.	3.93	34.57	27.47	72.6	1.815
808.	5.68	34.55			27.26	92.6	1500.	3.06	34.61	27.57	63.3	2.021
1014.	4.62	34.56			27.39	80.3						
1209.	3.90	34.57			27.48	72.3						
1513.	3.02	34.61			27.58	63.0						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.16
TEMPERATURE ERROR TERM AT 150. METERS IS 0.27

CROMWELL 1, STATION 8, 11-32N LAT, 154- 0W LONG, FEB. 19, 1964, 2000 G.C.T.
DRY BULB 25.2 WET BULB 21.4 WIND SPEED 17, DIR. 06 BAR. 14 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.00	34.23			22.78	508.3	0.	25.00	34.23	22.78	508.3	0.000
10.	25.00	34.25			22.80	507.2	10.	25.00	34.25	22.80	507.2	0.052
30.Δ	25.00	34.25			22.80	508.0	20.	25.00	34.25	22.80	507.4	0.103
50.Δ	25.00	34.25			22.80	508.8	30.	25.00	34.25	22.80	508.0	0.154
69.	25.01	34.26			22.80	509.1	50.	25.00	34.25	22.80	508.8	0.256
75.Δ	25.01	34.26			22.80	509.3	75.	25.01	34.26	22.80	509.3	0.385
96.	19.73	34.85			24.74	325.0	100.	19.01	34.84	24.91	308.5	0.488
118.	16.38	34.60			25.37	265.0	150.	12.66	34.31	25.95	210.3	0.618
145.	13.13	34.31			25.85	219.5	200.	11.35	34.70	26.50	159.2	0.711
167.	11.54	34.41			26.24	183.1	250.	10.49	34.71	26.66	144.5	0.788
188.	11.49	34.63			26.42	166.5	300.	9.96	34.70	26.74	137.5	0.859
209.	11.21	34.73			26.55	154.7	400.	9.01	34.64	26.85	128.6	0.993
234.	10.67	34.71			26.63	147.3	500.	8.01	34.59	26.97	118.5	1.118
247.	10.52	34.71			26.65	145.0	600.	7.02	34.55	27.08	108.5	1.233
279.	10.17	34.71			26.72	139.8	700.	6.17	34.54	27.19	98.7	1.337
370.	9.30	34.65			26.82	131.7	800.	5.50	34.54	27.27	90.8	1.433
460.	8.42	34.61			26.92	122.4	1000.	4.52	34.56	27.41	78.6	1.605
552.	7.48	34.56			27.03	113.5	1200.	3.78	34.58	27.50	69.8	1.755
731.	5.94	34.54			27.22	95.8						
917.	4.89	34.55			27.35	83.5						
1099.	4.14	34.58			27.46	73.6						
1393.	3.31	34.60			27.56	64.3						

CROMWELL 1, STATION 9, 13- 4N LAT, 153-53W LONG, FEB. 20, 1964, 0700 G.C.T.
DRY BULB 24.2 WET BULB 21.0 WIND SPEED 17, DIR. 05 BAR. 12 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.52	34.38			23.04	483.7	0.	24.52	34.38	23.04	483.7	0.000
11.	24.49	34.39			23.06	482.5	10.	24.49	34.39	23.05	482.6	0.049
30.Δ	24.49	34.39			23.06	483.3	20.	24.49	34.39	23.06	482.6	0.098
51.	24.49	34.39			23.06	484.1	30.	24.49	34.39	23.06	483.3	0.146
76.	24.22	34.37			23.12	478.8	50.	24.49	34.39	23.06	484.1	0.244
106.	18.51	34.83			25.03	297.0	75.	24.27	34.37	23.10	480.4	0.365
131.	14.95	34.28			25.45	257.9	100.	19.82	34.77	24.65	333.6	0.468
160.	11.84	34.29			26.09	197.1	150.	12.70	34.23	25.88	217.2	0.607
186.	11.29	34.54			26.38	169.5	200.	11.16	34.61	26.46	162.6	0.702
209.	11.08	34.63			26.49	159.7	250.	10.29	34.64	26.64	146.0	0.780
235.	10.63	34.64			26.58	151.8	300.	9.41	34.62	26.77	134.5	0.851
264.	9.98	34.64			26.69	141.4	400.	8.31	34.58	26.92	122.1	0.980
278.	9.75	34.62			26.72	139.4	500.	7.31	34.54	27.04	111.5	1.098
311.	9.25	34.62			26.80	131.9	600.	6.43	34.52	27.14	102.2	1.206
410.	8.22	34.57			26.92	121.4	700.	5.75	34.52	27.23	94.0	1.305
507.	7.24	34.54			27.04	110.7	800.	5.21	34.54	27.31	87.0	1.397
604.	6.40	34.52			27.14	101.9	1000.	4.42	34.57	27.42	76.8	1.563
794.	5.24	34.54			27.30	87.3	1200.	3.77	34.59	27.50	69.3	1.711
989.	4.46	34.57			27.42	77.3						
1174.	3.85	34.58			27.49	70.7						
1440.	3.18	34.61			27.58	62.3						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.20

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 10, 14-33N LAT, 153-57W LONG, FEB. 20, 1964, 1700 G.C.T.
DRY BULB 23.5 WET BULB 20.5 WIND SPEED 17, DIR. 05 BAR. 14 WEATHER VIS. CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.42	34.32			23.02	485.1	0.	24.42	34.32	23.02	485.1	0.000
10.	24.44	34.31			23.01	486.8	10.	24.44	34.31	23.01	486.8	0.049
30.Δ	24.46	34.34			23.03	486.0	20.	24.45	34.32	23.02	486.7	0.098
50.Δ	24.46	34.36			23.04	485.3	30.	24.46	34.34	23.03	486.0	0.147
76.	24.24	34.43			23.16	475.0	50.	24.46	34.36	23.04	485.3	0.245
105.	22.32	35.05			24.19	378.2	75.	24.26	34.42	23.15	476.2	0.366
130.	20.28	35.12			24.80	320.6	100.	22.73	34.94	23.99	396.9	0.476
159.	17.19	34.69			25.25	278.0	150.	18.15	34.84	25.14	288.8	0.649
185.	15.12	34.44			25.53	251.4	200.	13.05	34.26	25.83	222.7	0.778
208.	12.07	34.21			25.98	208.4	250.	11.58	34.60	26.38	171.8	0.878
235.	11.74	34.53			26.29	179.5	300.	9.02	34.39	26.66	144.7	0.957
264.	11.00	34.56			26.45	164.8	400.	8.31	34.53	26.88	125.4	1.094
278.	9.48	34.37			26.57	153.4	500.	7.48	34.55	27.01	113.8	1.214
314.	9.24	34.49			26.70	141.4	600.	6.73	34.54	27.12	104.5	1.325
418.	8.10	34.52			26.90	123.4	700.	6.04	34.53	27.20	97.2	1.427
523.	7.33	34.55			27.04	111.6	800.	5.46	34.53	27.27	91.0	1.522
627.	6.52	34.54			27.14	102.4	1000.	4.58	34.54	27.38	80.7	1.696
832.	5.30	34.53			27.29	89.3	1200.	3.84	34.57	27.48	71.8	1.850
1042.	4.42	34.55			27.41	78.8	1500.	3.00	34.60	27.58	61.6	2.053
1241.	3.70	34.57			27.50	70.1						
1551.	2.89	34.60			27.60	60.2						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.14
TEMPERATURE ERROR TERM AT 250. METERS IS 0.12
TEMPERATURE ERROR TERM AT 300. METERS IS 0.21

CROMWELL 1, STATION 11, 16- 0N LAT, 154- 2W LONG, FEB. 21, 1964, 0200 G.C.T.
DRY BULB 23.9 WET BULB 20.4 WIND SPEED 17, DIR. 05 BAR. 13 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.75	34.60			23.43	446.0	0.	23.75	34.60	23.43	446.0	0.000
9.Δ	23.69	34.59			23.44	445.4	10.	23.69	34.59	23.44	445.4	0.045
30.Δ	23.70	34.59			23.44	446.5	20.	23.69	34.59	23.44	445.9	0.090
47.	23.57	34.56			23.46	445.7	30.	23.70	34.59	23.44	446.5	0.135
71.	23.57	34.60			23.49	443.7	50.	23.56	34.57	23.46	445.0	0.225
75.Δ	23.58	34.59			23.48	444.8	75.	23.58	34.59	23.48	444.8	0.337
96.	23.32	34.59			23.55	438.4	100.	22.99	34.59	23.65	429.4	0.447
100.	22.99	34.59			23.65	429.4	150.	18.15	34.81	25.11	291.3	0.629
123.	20.44	35.10			24.74	325.8	200.	13.44	34.42	25.87	219.1	0.767
151.	18.06	34.79			25.12	290.7	250.	11.54	34.52	26.33	176.7	0.857
176.	15.09	34.46			25.55	249.0	300.	10.95	34.68	26.55	156.1	0.941
276.	11.36	34.68			26.48	162.6	400.	9.62	34.64	26.75	138.6	1.090
291.	11.10	34.68			26.53	158.3	500.	8.51	34.59	26.89	126.3	1.224
326.	10.56	34.67			26.62	150.4	600.	7.54	34.55	27.01	116.0	1.346
432.	9.27	34.62			26.80	134.7	700.	6.64	34.53	27.12	106.1	1.458
537.	8.13	34.57			26.94	122.3	800.	5.81	34.51	27.21	97.0	1.561
643.	7.17	34.54			27.05	111.9	1000.	4.76	34.54	27.36	83.7	1.744
848.	5.45	34.51			27.26	93.0	1200.	4.07	34.56	27.45	74.8	1.904
1060.	4.56	34.55			27.39	80.7	1500.	3.19	34.60	27.57	63.7	2.115
1261.	3.88	34.57			27.48	72.5						
1518.	3.15	34.60			27.57	63.2						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.29
SALINITY ERROR TERM AT 200. METERS IS 0.09
TEMPERATURE ERROR TERM AT 250. METERS IS 0.31
SALINITY ERROR TERM AT 250. METERS IS 0.09

CROMWELL 1, STATION 12, 17-30N LAT, 154- 0W LONG, FEB. 21, 1964, 1300 G.C.T.
DRY BULB 23.0 WET BULB 20.5 WIND SPEED 15, DIR. 04 BAR. 16 WEATHER 00 VIS. 8 CLOUD TYPE , COVER 0

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.78	34.63			23.45	444.7	0.	23.78	34.63	23.45	444.7	0.000
11.	23.80	34.62			23.43	446.4	10.	23.80	34.62	23.43	446.4	0.045
30.Δ	23.80	34.72			23.51	439.9	20.	23.80	34.65	23.46	444.5	0.090
50.Δ	23.80	34.92			23.66	426.3	30.	23.80	34.72	23.51	439.9	0.135
76.	24.06	35.10			23.72	421.7	50.	23.80	34.92	23.66	426.3	0.222
100.Δ	23.24	35.22			24.05	390.9	75.	24.06	35.09	23.72	422.0	0.329
106.	22.92	35.22			24.14	382.3	100.	23.24	35.22	24.05	390.9	0.431
132.	21.38	35.13			24.51	348.4	150.	20.37	35.08	24.75	326.3	0.612
161.	19.70	35.04			24.89	312.8	200.	16.82	34.74	25.38	267.2	0.762
187.	17.69	34.83			25.24	280.3	250.	12.67	34.29	25.93	214.9	0.883
212.	15.98	34.65			25.50	255.4	300.	10.03	34.16	26.31	178.0	0.982
237.	13.81	34.40			25.78	228.7	400.	8.10	34.29	26.72	140.1	1.143
267.	11.39	34.19			26.09	198.9	500.	6.94	34.38	26.96	118.3	1.273
283.	10.62	34.17			26.22	187.2	600.	6.17	34.43	27.10	105.1	1.386
317.	9.58	34.17			26.39	170.5	700.	5.58	34.47	27.21	95.7	1.487
423.	7.84	34.33			26.79	133.6	800.	5.06	34.49	27.29	88.4	1.580
528.	6.68	34.39			27.00	114.2	1000.	4.29	34.53	27.41	78.0	1.749
633.	5.98	34.45			27.14	101.7	1200.	3.69	34.56	27.49	70.7	1.900
838.	4.88	34.50			27.31	86.2	1500.	3.01	34.59	27.58	61.9	2.101
1049.	4.14	34.54			27.43	76.1						
1250.	3.56	34.56			27.50	69.2						
1564.	2.90	34.60			27.60	60.4						

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 13, 19- 6N LAT, 153-57W LONG, FEB. 21, 1964, 2300 G.C.T.
DRY BULB 23.2 WET BULB 20.6 WIND SPEED 11, DIR. 08 BAR. 19 WEATHER 02 VIS. 8 CLOUD TYPE 9, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.76	34.62			23.45	444.9	0.	23.76	34.62	23.45	444.8	0.000
10.	23.76	34.62			23.45	445.2	10.	23.76	34.62	23.45	445.2	0.045
20.	23.73	34.63			23.46	444.1	20.	23.73	34.63	23.46	444.1	0.090
30.Δ	23.70	34.65			23.49	442.2	30.	23.70	34.65	23.49	442.2	0.135
50.Δ	23.70	34.65			23.49	442.9	50.	23.70	34.65	23.49	442.9	0.224
75.Δ	23.71	34.66			23.49	443.4	75.	23.71	34.66	23.49	443.4	0.336
86.	23.77	34.63			23.45	447.7	100.	23.78	34.66	23.47	446.4	0.448
100.Δ	23.78	34.66			23.47	446.4	150.	19.06	34.96	24.99	302.3	0.636
115.	21.06	34.60			24.19	377.7	200.	14.24	34.38	25.68	237.7	0.772
140.	19.72	34.99			24.85	316.2	250.	11.92	34.20	26.00	207.3	0.885
171.	17.32	34.73			25.25	278.5	300.	10.19	34.15	26.27	182.0	0.983
196.	14.52	34.41			25.64	241.3	400.	7.15	34.09	26.70	141.3	1.146
221.	13.14	34.29			25.83	223.1	500.	5.87	34.19	26.95	117.8	1.277
246.	12.16	34.21			25.96	211.0	600.	5.35	34.35	27.14	100.8	1.387
275.	10.63	34.16			26.21	187.9	700.	4.89	34.44	27.26	89.5	1.483
291.	10.44	34.15			26.23	185.8	800.	4.55	34.49	27.34	82.6	1.570
326.	9.32	34.14			26.41	168.7	1000.	3.92	34.53	27.44	74.0	1.729
431.	6.46	34.08			26.79	132.8	1200.	3.41	34.56	27.52	67.0	1.871
534.	5.76	34.26			27.02	111.6	1500.	2.76	34.59	27.61	58.8	2.063
640.	5.13	34.39			27.20	95.3						
844.	4.43	34.50			27.36	80.7						
1052.	3.76	34.53			27.46	72.2						
1250.	3.31	34.57			27.53	65.4						
1558.	2.66	34.60			27.62	57.5						

CROMWELL 1, STATION 14, 20-30N LAT, 154- 7W LONG, FEB. 22, 1964, 0900 G.C.T.
DRY BULB 22.5 WET BULB 20.8 WIND SPEED 21, DIR. 06 BAR. 20 WEATHER 21 VIS. 8 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.69	34.61			23.46	443.6	0.	23.69	34.61	23.46	443.6	0.000
10.	23.67	34.61			23.46	443.4	10.	23.67	34.61	23.46	443.4	0.045
30.Δ	23.70	34.63			23.47	443.6	20.	23.68	34.62	23.47	443.5	0.090
50.Δ	23.70	34.64			23.48	443.6	30.	23.70	34.63	23.47	443.6	0.135
68.	23.65	34.65			23.50	442.2	50.	23.70	34.64	23.48	443.6	0.224
75.Δ	23.58	34.66			23.53	439.8	75.	23.58	34.66	23.53	439.8	0.335
95.	22.64	34.75			23.87	408.1	100.	21.85	34.73	24.07	388.6	0.440
117.	19.12	34.66			24.75	324.5	150.	17.09	34.74	25.32	271.4	0.606
142.	18.06	34.86			25.17	285.3	200.	13.25	34.30	25.82	223.9	0.731
165.	15.23	34.48			25.54	250.2	250.	10.55	34.15	26.21	186.7	0.834
185.	14.10	34.37			25.70	235.4	300.	9.47	34.17	26.41	168.4	0.924
208.	12.79	34.27			25.89	217.5	400.	6.97	34.08	26.72	139.5	1.079
232.	11.30	34.18			26.10	197.2	500.	5.63	34.17	26.97	116.2	1.208
244.	10.72	34.15			26.18	189.6	600.	5.11	34.31	27.14	100.4	1.318
273.	10.09	34.17			26.31	178.0	700.	4.80	34.42	27.26	89.9	1.414
354.	8.19	34.14			26.59	151.7	800.	4.55	34.49	27.34	82.7	1.501
433.	6.22	34.05			26.80	131.9	1000.	3.99	34.55	27.45	73.1	1.659
504.	5.61	34.18			26.98	115.3						
645.	4.96	34.36			27.19	95.4						
782.	4.60	34.48			27.33	83.6						
916.	4.22	34.51			27.40	78.0						
1158.	3.53	34.56			27.51	68.1						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.15
TEMPERATURE ERROR TERM AT 150. METERS IS 0.13

CROMWELL 1, STATION 15, 22- 3N LAT, 153-58W LONG, FEB. 22, 1964, 1800 G.C.T.
DRY BULB 22.5 WET BULB 19.4 WIND SPEED 20, DIR. 08 BAR. 21 WEATHER 02 VIS. 7 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.60	34.74			23.58	431.8	0.	23.60	34.74	23.58	431.7	0.000
11.	23.60	34.74			23.58	432.1	10.	23.60	34.74	23.58	432.0	0.044
21.	23.64	34.74			23.57	433.6	20.	23.64	34.74	23.57	433.5	0.088
76.	23.47	35.20			23.97	397.9	30.	23.65	34.81	23.62	429.1	0.131
100.Δ	23.22	35.17			24.02	394.0	50.	23.63	34.98	23.76	417.1	0.216
105.	22.88	35.14			24.09	387.0	75.	23.48	35.19	23.96	398.7	0.319
140.	21.49	35.15			24.49	350.1	100.	23.22	35.17	24.02	394.0	0.419
170.	19.94	35.07			24.85	317.0	150.	21.03	35.14	24.61	339.5	0.604
185.	18.90	34.98			25.05	298.3	200.	18.61	34.96	25.11	293.3	0.763
220.	18.04	34.89			25.20	285.3	250.	15.66	34.60	25.53	253.5	0.901
235.	16.59	34.71			25.41	265.3	300.	13.09	34.33	25.87	221.4	1.021
273.	14.63	34.48			25.67	240.7	400.	9.16	34.06	26.38	173.2	1.220
290.	13.81	34.40			25.78	230.2	500.	6.86	34.06	26.72	140.9	1.378
315.	11.97	34.22			26.01	208.4	600.	5.84	34.19	26.95	118.8	1.510
419.	8.90	34.08			26.43	168.2	700.	5.24	34.32	27.13	102.9	1.622
526.	6.36	34.07			26.79	133.5	800.	4.55	34.39	27.26	90.1	1.719
633.	5.75	34.25			27.01	113.5	1000.	3.93	34.50	27.42	75.8	1.887
832.	4.34	34.40			27.30	86.8	1200.	3.38	34.57	27.53	66.2	2.031
1034.	3.88	34.52			27.44	74.3	1500.	2.71	34.58	27.60	59.2	2.222
1226.	3.30	34.57			27.54	65.2						
1507.	2.70	34.58			27.60	59.1						

SALINITY ERROR TERM AT 50. METERS IS 0.06
TEMPERATURE ERROR TERM AT 200. METERS IS 0.23
TEMPERATURE ERROR TERM AT 400. METERS IS 0.17

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 1, STATION 16, 23-30N LAT, 154- 4W LONG, FEB. 23, 1964, 0200 G.C.T. DRY BULB 22.4 WET BULB 19.4 WIND SPEED 15, DIR. 04 BAR. 21 WEATHER 18 VIS. 8 CLOUD TYPE 6, COVER 7												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.20	35.07			23.95	396.8	0.	23.20	35.07	23.95	396.8	0.000
10.	23.18	35.13			24.00	392.3	10.	23.18	35.13	24.00	392.3	0.040
75.	23.04	35.20			24.09	385.9	20.	23.15	35.16	24.03	389.6	0.080
105.	23.04	35.19			24.09	387.8	30.	23.13	35.19	24.06	387.5	0.119
130.	20.96	35.10			24.60	339.5	50.	23.08	35.21	24.09	385.2	0.197
161.	18.93	34.98			25.04	298.2	75.	23.04	35.20	24.09	385.9	0.294
186.	17.28	34.76			25.28	275.8	100.	23.13	35.20	24.06	389.7	0.391
211.	16.15	34.64			25.46	259.9	150.	19.62	35.03	24.91	310.9	0.568
236.	14.70	34.50			25.67	239.6	200.	16.63	34.69	25.38	266.8	0.714
266.	13.40	34.38			25.85	222.8	250.	14.28	34.45	25.72	235.1	0.840
271.	12.85	34.35			25.94	214.4	300.	11.65	34.26	26.10	199.5	0.950
317.	11.58	34.23			26.09	200.6	400.	9.57	34.12	26.35	176.0	1.139
422.	9.06	34.10			26.42	169.3	500.	7.11	34.05	26.68	144.8	1.301
527.	6.52	34.05			26.76	137.2	600.	5.66	34.12	26.93	121.2	1.435
633.	5.41	34.17			26.99	115.0	700.	4.99	34.24	27.09	105.4	1.550
839.	4.42	34.36			27.25	90.8	800.	4.54	34.33	27.22	94.2	1.651
1049.	3.74	34.50			27.44	74.2	1000.	3.87	34.47	27.40	77.2	1.824
1251.	3.36	34.53			27.50	69.0	1200.	3.44	34.53	27.49	69.9	1.973
1561.	2.72	34.59			27.61	59.0	1500.	2.82	34.59	27.59	60.0	2.171

TEMPERATURE ERROR TERM AT 250. METERS IS 0.16
TEMPERATURE ERROR TERM AT 300. METERS IS 0.26

CROMWELL 1, STATION 17, 23-30N LAT, 150-59W LONG, FEB. 23, 1964, 1900 G.C.T.
DRY BULB 21.5 WET BULB 17.9 WIND SPEED 17, DIR. 08 BAR. 24 WEATHER 15 VIS. 8 CLOUD TYPE 8, COVER 4

OBSERVED DATA REJECTED DUE TO EQUIPMENT FAILURE

CROMWELL 1, STATION 18, 22- 0N LAT, 151- 0W LONG, FEB. 24, 1964, 0400 G.C.T.
DRY BULB 22.2 WET BULB 19.6 WIND SPEED 06, DIR. 05 BAR. 21 WEATHER 15 VIS. 8 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.07	34.70			23.71	419.9	0.	23.07	34.70	23.71	419.9	0.000
10.	23.08	34.70			23.70	420.6	10.	23.08	34.70	23.70	420.6	0.043
51.	23.12	34.78			23.75	417.5	20.	23.10	34.69	23.69	422.0	0.085
76.	23.04	35.04			23.97	397.5	30.	23.11	34.70	23.70	422.0	0.128
106.	22.14	35.13			24.30	367.6	50.	23.12	34.77	23.75	417.8	0.212
131.	20.88	35.12			24.64	336.0	75.	23.05	35.03	23.96	398.4	0.315
161.	19.57	35.05			24.93	308.9	100.	22.38	35.13	24.23	374.2	0.412
186.	18.54	34.92			25.10	293.9	150.	20.03	35.08	24.84	317.6	0.587
211.	17.28	34.77			25.29	275.9	200.	17.84	34.84	25.20	283.8	0.738
237.	16.04	34.61			25.46	260.4	250.	14.87	34.46	25.61	246.2	0.872
265.	13.48	34.31			25.78	229.5	300.	11.61	34.18	26.05	204.3	0.986
280.	12.53	34.25			25.92	215.8	400.	8.37	34.06	26.51	160.7	1.170
315.	11.06	34.14			26.12	197.8	500.	6.35	34.10	26.82	130.8	1.317
418.	7.93	34.07			26.58	154.1	600.	5.44	34.23	27.03	110.7	1.439
523.	6.04	34.12			26.87	125.5	700.	4.99	34.36	27.19	96.6	1.544
627.	5.32	34.27			27.08	106.4	800.	4.65	34.45	27.30	86.6	1.636
827.	4.58	34.47			27.32	84.5	1000.	4.06	34.52	27.42	76.3	1.801
1028.	3.98	34.52			27.43	75.4	1200.	3.53	34.56	27.50	68.7	1.948
1220.	3.48	34.56			27.51	68.0	1500.	2.88	34.59	27.59	60.6	2.144
1522.	2.84	34.59			27.59	60.2						

Table 1.--Continued

CROMWELL 1, STATION 19, 20-30N LAT, 151- 0W LONG, FEB. 24, 1964, 1400 G.C.T.
DRY BULB 22.3 WET BULB 18.5 WIND SPEED 15, DIR. 09 BAR. 20 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 1

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.06	34.73			23.73	417.5	0.	23.06	34.73	23.73	417.5	0.000
10.	23.08	34.72			23.72	419.1	10.	23.08	34.72	23.72	419.1	0.042
73.	23.08	34.74			23.73	420.1	20.	23.09	34.71	23.71	420.3	0.084
101.	23.08	34.81			23.79	416.1	30.	23.09	34.71	23.71	421.1	0.127
125.	22.26	35.09			24.23	374.5	50.	23.09	34.71	23.71	421.5	0.212
153.	21.22	35.15			24.57	343.5	75.	23.10	34.74	23.73	420.7	0.318
178.	19.64	35.04			24.91	311.9	100.	23.09	34.80	23.78	416.7	0.423
201.	18.50	34.90			25.09	294.9	150.	21.35	35.16	24.54	346.5	0.615
225.	16.58	34.65			25.36	269.1	200.	18.55	34.91	25.08	295.6	0.777
254.	14.12	34.37			25.69	237.7	250.	14.46	34.40	25.65	242.0	0.913
268.	12.98	34.27			25.85	222.7	300.	11.20	34.18	26.12	197.0	1.024
301.	11.16	34.18			26.13	196.3	400.	8.37	34.13	26.56	155.9	1.202
400.	8.37	34.13			26.56	155.9	500.	6.51	34.17	26.85	127.7	1.345
497.	6.56	34.17			26.85	128.4	600.	5.77	34.29	27.04	110.2	1.465
536.*	6.06*	34.20			26.93	120.0	700.	5.33	34.39	27.18	98.3	1.570
598.	5.78	34.29			27.04	110.5	800.	4.94	34.45	27.27	89.8	1.665
792.	4.96	34.45			27.27	90.4	1000.	4.35	34.51	27.38	80.4	1.838
994.	4.37	34.51			27.38	80.6						
1000.**	4.35**	34.51**			27.38	80.4						

CROMWELL 1, STATION 20, 18-57N LAT, 151- 0W LONG, FEB. 24, 1964, 2300 G.C.T.
DRY BULB 23.2 WET BULB 19.7 WIND SPEED 22, DIR. 07 BAR. 21 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.38	34.73			23.64	426.3	0.	23.38	34.73	23.64	426.3	0.000
10.	23.37	34.73			23.64	426.4	10.	23.37	34.73	23.64	426.4	0.043
20.Δ	23.35	34.74			23.66	425.5	20.	23.35	34.74	23.66	425.5	0.086
50.Δ	23.10	34.86			23.82	411.1	30.	23.27	34.78	23.71	420.8	0.129
75.Δ	23.10	34.87			23.83	411.3	50.	23.10	34.86	23.82	411.1	0.213
113.	21.43	35.16			24.52	346.8	75.	23.10	34.87	23.83	411.3	0.316
138.	20.20	35.13			24.83	318.1	100.	22.13	35.06	24.25	371.8	0.415
167.	19.44	35.09			25.00	302.9	150.	19.87	35.12	24.91	310.8	0.587
192.	18.44	34.96			25.15	288.8	200.	17.65	34.85	25.26	278.7	0.736
216.	15.90	34.60			25.48	257.4	250.	13.25	34.30	25.82	225.7	0.863
242.	13.66	34.34			25.77	230.3	300.	10.54	34.16	26.22	186.8	0.967
271.	12.22	34.22			25.96	212.0	400.	7.57	34.09	26.64	147.1	1.135
286.	11.10	34.17			26.13	195.6	500.	6.38	34.22	26.91	122.0	1.271
320.	10.04	34.17			26.32	178.2	600.	6.08	34.39	27.08	107.2	1.387
412.	7.26	34.08			26.68	143.5	700.	5.61	34.46	27.20	97.0	1.490
524.	6.32	34.28			26.96	117.4	800.	5.02	34.48	27.28	88.9	1.584
627.	6.02	34.42			27.11	104.4	1000.	4.21	34.51	27.40	78.4	1.753
825.	4.86	34.48			27.30	87.3	1200.	3.58	34.55	27.49	70.0	1.903
1031.	4.12	34.52			27.41	77.1	1500.	2.96	34.59	27.58	61.7	2.104
1227.	3.50	34.55			27.50	69.0						
1534.	2.91	34.59			27.59	61.1						

CROMWELL 1, STATION 21, 17-29N LAT, 151- 1W LONG, FEB. 25, 1964, 0900 G.C.T.
DRY BULB 23.1 WET BULB 19.6 WIND SPEED 15, DIR. 06 BAR. 20 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.22	34.48			23.50	439.9	0.	23.22	34.48	23.50	439.9	0.000
9.	23.19	34.48			23.51	439.5	10.	23.19	34.48	23.51	439.5	0.045
44.	23.16	34.56			23.57	434.2	20.	23.19	34.48	23.51	439.6	0.089
50.Δ	23.12	34.60			23.62	430.4	30.	23.18	34.50	23.53	438.3	0.133
66.	23.36	34.80			23.70	423.2	50.	23.12	34.60	23.62	430.4	0.221
75.Δ	23.40	34.82			23.70	423.3	75.	23.40	34.82	23.70	423.3	0.328
93.	22.86	34.86			23.89	406.1	100.	22.53	34.92	24.03	393.2	0.431
115.	21.66	35.02			24.35	363.1	150.	19.30	34.86	24.86	315.3	0.610
141.	19.84	34.90			24.75	325.8	200.	14.88	34.42	25.57	248.3	0.752
163.	18.44	34.79			25.02	300.2	250.	11.42	34.23	26.12	196.0	0.864
184.	16.55	34.59			25.32	271.6	300.	9.51	34.24	26.46	164.0	0.954
205.	14.37	34.37			25.64	241.4	400.	7.16	34.20	26.79	133.1	1.104
230.	12.42	34.23			25.93	214.0	500.	6.63	34.35	26.98	115.7	1.230
242.	11.74	34.22			26.05	202.4	600.	6.04	34.42	27.11	104.7	1.341
272.	10.72	34.28			26.28	180.6	700.	5.65	34.45	27.19	98.0	1.444
356.	7.48	34.13			26.69	142.1	800.	5.13	34.49	27.28	89.3	1.538
440.	7.16	34.29			26.86	127.0	1000.	4.25	34.51	27.39	79.1	1.709
520.	6.44	34.37			27.02	112.3	1200.	3.63	34.55	27.49	70.1	1.860
723.	5.58	34.46			27.20	96.8						
842.	4.89	34.51			27.32	85.6						
1002.	4.24	34.51			27.39	79.1						
1256.	3.52	34.56			27.51	68.8						

TEMPERATURE ERROR TERM AT 300. METERS IS 0.13
TEMPERATURE ERROR TERM AT 400. METERS IS 0.14

ΔFROM BT DATA
*INTERPOLATED VALUE
**EXTRAPOLATED VALUE

Table 1.--Continued

CROMWELL 1, STATION 22, 15-55N LAT, 151- 9W LONG, FEB. 25, 1964, 1800 G.C.T.
DRY BULB 23.2 WET BULB 20.8 WIND SPEED 25, DIR. 05 BAR. 17 WEATHER 02 VIS. 6 CLOUD TYPE 8, COVER 3

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.54	34.42			23.36	453.1	0.	23.54	34.42	23.36	453.1	0.000
10.	23.50	34.40			23.36	453.8	10.	23.50	34.40	23.36	453.8	0.046
30.Δ	23.49	34.42			23.37	452.9	20.	23.49	34.41	23.36	453.5	0.092
50.Δ	23.49	34.42			23.37	453.6	30.	23.49	34.42	23.37	452.9	0.138
74.	23.50	34.41			23.36	455.6	50.	23.49	34.42	23.37	453.6	0.229
103.	21.66	34.58			24.01	394.4	75.	23.47	34.42	23.38	454.4	0.343
127.	18.51	34.60			24.86	314.4	100.	21.95	34.56	23.92	403.3	0.451
157.	15.36	34.41			25.46	257.8	150.	16.09	34.47	25.34	269.2	0.621
181.	12.34	34.23			25.95	211.3	200.	11.34	34.15	26.07	199.4	0.739
206.	11.16	34.14			26.10	197.1	250.	10.11	34.29	26.40	169.0	0.832
230.	10.28	34.20			26.30	178.1	300.	9.34	34.44	26.64	146.7	0.911
259.	10.10	34.34			26.44	165.4	400.	7.66	34.42	26.89	124.1	1.048
274.	9.95	34.43			26.54	156.6	500.	6.87	34.47	27.04	110.4	1.166
308.	9.12	34.42			26.67	144.5	600.	5.99	34.47	27.15	100.3	1.273
411.	7.54	34.42			26.91	122.4	700.	5.30	34.47	27.24	91.9	1.370
515.	6.78	34.48			27.06	108.8	800.	4.82	34.50	27.32	84.8	1.459
619.	5.82	34.46			27.17	98.7	1000.	4.05	34.54	27.43	74.8	1.621
820.	4.74	34.51			27.34	83.5	1200.	3.48	34.58	27.52	66.7	1.764
1029.	3.96	34.54			27.45	73.7	1500.	2.77	34.61	27.61	57.9	1.953
1217.	3.44	34.58			27.53	66.0						
1536.	2.70	34.61			27.62	57.1						

CROMWELL 1, STATION 23, 14-29N LAT, 151- 1W LONG, FEB. 26, 1964, 0300 G.C.T.
DRY BULB 24.3 WET BULB 22.2 WIND SPEED 25, DIR. 06 BAR. 14 WEATHER 03 VIS. 6 CLOUD TYPE 0, COVER 8

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.50	34.33			23.01	486.7	0.	24.50	34.33	23.01	486.7	0.000
10.	24.53	34.35			23.01	486.5	10.	24.53	34.35	23.01	486.5	0.050
30.Δ	24.52	34.34			23.01	487.7	20.	24.53	34.35	23.01	487.0	0.099
50.Δ	24.52	34.34			23.01	488.5	30.	24.52	34.34	23.01	487.7	0.148
75.	24.52	34.34			23.01	489.4	50.	24.52	34.34	23.01	488.5	0.246
100.Δ	21.60	34.51			23.98	397.8	75.	24.52	34.34	23.01	489.4	0.369
103.	20.44	34.52			24.30	367.1	100.	21.60	34.51	23.98	397.8	0.481
129.	17.54	34.47			25.00	301.1	150.	14.60	34.35	25.57	246.3	0.643
158.	13.59	34.31			25.76	228.8	200.	11.66	34.46	26.26	182.2	0.751
184.	12.10	34.39			26.12	195.2	250.	11.10	34.68	26.53	157.2	0.837
207.	11.55	34.50			26.30	177.6	300.	10.25	34.67	26.67	144.7	0.913
232.	11.28	34.64			26.46	163.1	400.	8.77	34.61	26.87	126.9	1.050
262.	10.95	34.69			26.56	154.3	500.	7.68	34.55	26.99	116.3	1.173
276.	10.68	34.68			26.60	150.6	600.	6.85	34.51	27.08	108.5	1.286
312.	10.04	34.66			26.70	142.0	700.	6.14	34.51	27.17	100.3	1.392
414.	8.60	34.60			26.89	125.1	800.	5.53	34.52	27.26	92.4	1.489
518.	7.51	34.54			27.01	114.8	1000.	4.68	34.56	27.38	81.1	1.665
623.	6.68	34.51			27.10	106.8	1200.	3.97	34.57	27.47	73.2	1.821
825.	5.40	34.53			27.28	90.5						
1013.	4.64*	34.56			27.39	80.5						
1035.	4.56	34.56			27.40	79.7						
1223.	3.89	34.57			27.48	72.3						

TEMPERATURE ERROR TERM AT 150. METERS IS 0.11

CROMWELL 1, STATION 24, 13- 0N LAT, 151- 0W LONG, FEB. 26, 1964, 1300 G.C.T.
DRY BULB 24.0 WET BULB 22.0 WIND SPEED 18, DIR. 06 BAR. 14 WEATHER 00 VIS. 6 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.47	34.18			22.90	496.7	0.	24.47	34.18	22.90	496.7	0.000
9.	24.45	34.18			22.91	496.4	10.	24.45	34.18	22.91	496.5	0.051
30.Δ	24.46	34.18			22.91	497.5	20.	24.45	34.18	22.91	496.9	0.101
50.Δ	24.46	34.18			22.91	498.3	30.	24.46	34.18	22.91	497.5	0.151
77.	24.47	34.17			22.90	500.3	50.	24.46	34.18	22.91	498.3	0.251
104.	20.04	34.55			24.43	354.8	75.	24.55	34.16	22.87	502.8	0.377
127.	17.98	34.62			25.01	300.4	100.	20.77	34.49	24.19	377.4	0.488
154.	13.84	34.36			25.75	230.0	150.	14.44	34.40	25.65	238.9	0.643
177.	12.16	34.32			26.05	201.2	200.	11.45	34.55	26.36	172.1	0.747
198.	11.46	34.53			26.34	173.6	250.	10.81	34.68	26.58	152.0	0.828
221.	11.38	34.68			26.48	161.7	300.	10.14	34.66	26.69	143.1	0.903
247.	10.82	34.68			26.58	152.4	400.	8.90	34.61	26.85	129.1	1.040
260.	10.77	34.69			26.59	151.1	500.	7.79	34.55	26.97	117.8	1.165
290.	10.28	34.67			26.67	144.8	600.	6.92	34.53	27.08	108.1	1.279
381.	9.14	34.62			26.82	131.5	700.	6.16	34.52	27.18	99.7	1.384
472.	8.06	34.56			26.94	120.8	800.	5.51	34.52	27.25	92.7	1.481
560.	7.26	34.54			27.04	111.9	1000.	4.54	34.54	27.39	80.5	1.657
738.	5.90	34.52			27.21	96.9	1200.	3.84	34.57	27.48	71.7	1.811
920.	4.87	34.52			27.33	85.5						
1093.	4.22	34.57			27.44	75.3						
1314.	3.56	34.58			27.52	68.2						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.14

ΔFROM BT DATA
*INTERPOLATED VALUE

Table 1.--Continued

CROMWELL 1, STATION 25, 11-35N LAT, 150-59W LONG, FEB. 26, 1964, 2200 G.C.T.
DRY BULB 25.5 WET BULB 23.0 WIND SPEED 22, DIR. 06 BAR. 15 WEATHER 02 VIS. 7 CLOUD TYPE 6, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	25.33	34.25			22.70	516.5	0.	25.33	34.25	22.70	516.4	0.000
10.	25.39	34.25			22.68	518.6	10.	25.39	34.25	22.68	518.6	0.053
30.Δ	25.39	34.25			22.68	519.4	20.	25.40	34.25	22.67	519.3	0.105
49.	25.38	34.25			22.68	519.8	30.	25.39	34.25	22.68	519.4	0.157
74.	18.11	34.50			24.88	310.4	50.	25.14	34.26	22.76	512.2	0.261
103.	13.18	34.53			26.01	203.2	75.	17.88	34.50	24.94	304.9	0.364
127.	11.84	34.71			26.41	165.5	100.	13.52	34.53	25.94	209.9	0.429
156.	11.26	34.75			26.55	152.9	150.	11.32	34.75	26.54	153.7	0.520
182.	11.00	34.75			26.60	148.9	200.	10.78	34.74	26.63	146.0	0.596
205.	10.72	34.74			26.64	145.3	250.	10.32	34.73	26.71	140.0	0.668
230.	10.54	34.73			26.67	143.5	300.	9.91	34.71	26.76	135.5	0.738
258.	10.22	34.73			26.72	138.7	400.	9.09	34.67	26.86	127.6	0.870
273.	10.06	34.71			26.73	137.8	500.	8.11	34.63	26.98	117.2	0.994
308.	9.88	34.72			26.77	134.8	600.	7.17	34.57	27.08	109.1	1.108
410.	8.99	34.66			26.87	126.8	700.	6.34	34.54	27.17	100.9	1.214
513.	7.98	34.62			27.00	115.9	800.	5.63	34.54	27.26	92.6	1.312
615.	7.04	34.56			27.09	108.1	1000.	4.65	34.56	27.39	80.8	1.488
817.	5.52	34.54			27.27	91.3	1200.	3.96	34.58	27.48	72.4	1.643
1025.	4.56	34.56			27.40	79.6	1500.	3.14	34.61	27.58	62.5	1.848
1223.	3.89	34.58			27.49	71.6						
1532.	3.08	34.61			27.59	61.7						

CROMWELL 1, STATION 26, 10- 1N LAT, 148- 1W LONG, FEB. 27, 1964, 1900 G.C.T.
DRY BULB 26.5 WET BULB 23.5 WIND SPEED 15, DIR. 08 BAR. 15 WEATHER 01 VIS. 6 CLOUD TYPE 8, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.Δ	25.62	34.26			22.61	524.2	0.	25.62	34.26	22.61	524.2	0.000
10.	25.62	34.26			22.61	524.6	10.	25.62	34.26	22.61	524.6	0.053
19.	25.61	34.25			22.61	525.4	20.	25.61	34.25	22.61	525.4	0.106
30.Δ	25.60	34.25			22.61	525.5	30.	25.60	34.25	22.61	525.5	0.159
50.Δ	25.58	34.26			22.63	525.0	50.	25.58	34.26	22.63	525.0	0.265
57.	21.12	34.46			24.07	387.3	75.	16.00	34.44	25.34	267.0	0.365
75.Δ	16.00	34.44			25.34	267.0	100.	12.36	34.57	26.20	185.0	0.422
80.	14.63	34.40			25.61	241.0	150.	11.32	34.75	26.55	153.3	0.507
109.	12.22	34.69			26.33	173.5	200.	10.66	34.74	26.66	143.9	0.582
132.	11.65	34.75			26.48	159.2	250.	10.14	34.72	26.73	137.5	0.653
161.	11.15	34.75			26.57	151.0	300.	9.77	34.70	26.78	134.2	0.721
185.	10.86	34.75			26.63	146.5	400.	8.94	34.65	26.88	126.2	0.853
208.	10.56	34.74			26.67	142.6	500.	7.90	34.60	27.00	115.7	0.975
232.	10.30	34.73			26.71	139.5	600.	7.02	34.56	27.09	107.4	1.087
261.	10.05	34.72			26.74	136.6	700.	6.31	34.55	27.18	99.9	1.192
275.	9.94	34.71			26.76	135.8	800.	5.72	34.55	27.25	93.1	1.290
308.	9.72	34.70			26.78	133.6	1000.	4.80	34.56	27.37	82.4	1.467
407.	8.87	34.65			26.88	125.5						
508.	7.82	34.60			27.01	114.9						
608.	6.96	34.56			27.10	106.8						
804.	5.70	34.55			27.26	92.8						
1004.	4.78	34.56			27.37	82.3						
1195.	4.02	34.57			27.46	73.7						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.27

CROMWELL 1, STATION 27, 11-30N LAT, 148- 2W LONG, FEB. 28, 1964, 0700 G.C.T.
DRY BULB 25.0 WET BULB 22.4 WIND SPEED 30, DIR. 08 BAR. 15 WEATHER 15 VIS. 7 CLOUD TYPE 6, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.96	34.33			22.87	499.9	0.	24.96	34.33	22.87	499.9	0.000
9.	24.94	34.34			22.88	499.0	10.	24.94	34.34	22.88	498.9	0.051
30.Δ	24.92	34.35			22.90	498.5	20.	24.93	34.35	22.89	498.6	0.101
50.Δ	24.88	34.35			22.91	498.1	30.	24.92	34.35	22.90	498.5	0.151
64.	19.96	34.67			24.54	342.7	50.	24.88	34.35	22.91	498.1	0.252
75.Δ	18.18	34.60			24.94	304.8	75.	18.18	34.60	24.94	304.8	0.353
89.	15.15	34.44			25.5	249.2	100.	13.40	34.44	25.90	214.0	0.418
110.	12.33	34.50			26.16	189.5	150.	11.57	34.77	26.51	156.9	0.512
134.	11.94	34.75			26.43	164.6	200.	10.94	34.75	26.61	148.3	0.589
156.	11.44	34.76			26.53	155.3	250.	10.43	34.74	26.69	141.6	0.662
177.	11.20	34.75			26.56	152.3	300.	9.96	34.72	26.76	136.1	0.732
198.	10.96	34.75			26.61	148.6	400.	9.23	34.68	26.85	129.0	0.865
223.	10.71	34.74			26.64	145.5	500.	8.37	34.63	26.95	121.1	0.992
236.	10.58	34.74			26.67	143.6	600.	7.40	34.58	27.05	111.6	1.109
266.	10.26	34.73			26.72	139.5	700.	6.53	34.55	27.15	102.6	1.217
354.	9.56	34.70			26.81	131.9	800.	5.84	34.55	27.24	94.6	1.317
442.	8.92	34.66			26.88	126.3	1000.	4.83	34.57	27.37	82.4	1.496
531.	8.06	34.61			26.98	118.2	1200.	4.07	34.58	27.47	73.7	1.654
708.	6.46	34.55			27.16	102.0						
894.	5.32	34.56			27.31	88.1						
1075.	4.53	34.57			27.41	79.0						
1373.	3.64	34.59			27.52	68.9						

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 28, 13- ON LAT, 148- 7W LONG, FEB. 28, 1964, 1900 G.C.T.
DRY BULB 24.0 WET BULB 21.5 WIND SPEED 25, DIR. 02 BAR. 18 WEATHER 02 VIS. 7 CLOUD TYPE 4, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.15	34.29			23.08	479.7	0.	24.15	34.29	23.08	479.6	0.000
10.	24.14	34.29			23.08	479.7	10.	24.14	34.29	23.08	479.7	0.049
30.Δ	24.12	34.30			23.10	479.2	20.	24.13	34.29	23.09	479.5	0.097
50.	24.12	34.32			23.11	478.5	30.	24.12	34.30	23.10	479.2	0.145
76.	23.22	34.48			23.50	442.8	50.	24.12	34.32	23.11	478.5	0.242
106.	16.74	34.50			25.21	279.9	75.	23.30	34.47	23.47	445.6	0.358
131.	14.38	34.40			25.66	237.4	100.	18.11	34.51	24.89	310.6	0.454
161.	11.62	34.32			26.15	191.0	150.	12.46	34.33	26.00	205.6	0.584
186.	11.54	34.51			26.31	176.2	200.	11.35	34.60	26.42	166.7	0.677
211.	11.20	34.65			26.49	160.4	250.	10.94	34.70	26.57	152.8	0.758
236.	11.13	34.70			26.54	156.1	300.	10.54	34.71	26.65	146.9	0.834
266.	10.73	34.70			26.61	149.8	400.	9.23	34.65	26.83	130.9	0.974
281.	10.67	34.70			26.62	149.1	500.	7.99	34.57	26.96	119.7	1.100
317.	10.39	34.71			26.68	144.3	600.	6.96	34.53	27.08	108.8	1.216
421.	8.90	34.63			26.86	127.8	700.	6.11	34.52	27.18	99.1	1.321
526.	7.72	34.55			26.98	117.4	800.	5.44	34.52	27.26	91.6	1.417
632.	6.66	34.53			27.12	105.1	1000.	4.46	34.54	27.39	79.5	1.590
837.	5.23	34.52			27.29	89.2	1200.	3.76	34.58	27.50	69.7	1.741
1047.	4.28	34.55			27.42	77.1	1500.	3.01	34.61	27.59	60.9	1.940
1247.	3.62	34.59			27.52	67.7						
1558.	2.92	34.61			27.60	59.9						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.26
TEMPERATURE ERROR TERM AT 150. METERS IS 0.11

CROMWELL 1, STATION 29, 14-30N LAT, 148- 5W LONG, FEB. 29, 1964, 0400 G.C.T.
DRY BULB 24.1 WET BULB 21.2 WIND SPEED 26, DIR. 08 BAR. 17 WEATHER 02 VIS. 6 CLOUD TYPE 4, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.64	34.23			23.19	469.6	0.	23.64	34.23	23.19	469.6	0.000
10.	23.65	34.23			23.18	470.3	10.	23.65	34.23	23.18	470.3	0.048
30.Δ	23.65	34.23			23.18	471.1	20.	23.65	34.23	23.18	470.8	0.095
50.Δ	23.64	34.25			23.20	470.1	30.	23.65	34.23	23.18	471.1	0.143
75.	20.74	34.72			24.37	359.3	50.	23.64	34.25	23.20	470.1	0.237
104.	18.84	34.89			25.00	300.5	75.	20.74	34.72	24.37	359.3	0.342
129.	15.11	34.40			25.50	252.5	100.	19.13	34.90	24.93	306.7	0.426
153.	12.48	34.40			26.05	200.7	150.	12.74	34.38	25.99	206.6	0.555
183.	11.64	34.55			26.33	175.0	200.	11.32	34.63	26.45	164.0	0.649
207.	11.22	34.65			26.48	160.7	250.	10.63	34.62	26.57	153.3	0.729
233.	10.91	34.63			26.52	157.3	300.	10.12	34.65	26.68	143.5	0.803
263.	10.45	34.63			26.60	150.0	400.	8.97	34.62	26.84	129.4	0.941
277.	10.36	34.65			26.64	147.3	500.	7.83	34.57	26.98	117.1	1.066
312.	9.98	34.65			26.70	141.7	600.	6.90	34.54	27.09	107.1	1.179
415.	8.80	34.61			26.86	127.5	700.	6.14	34.53	27.19	98.8	1.283
521.	7.60	34.56			27.01	114.8	800.	5.51	34.53	27.26	91.8	1.379
624.	6.71	34.54			27.12	105.0	1000.	4.66	34.55	27.38	81.8	1.555
828.	5.36	34.53			27.28	90.0	1200.	3.95	34.57	27.47	72.5	1.711
1036.	4.54	34.55			27.39	80.2	1500.	3.08	34.60	27.58	62.4	1.916
1234.	3.84	34.58			27.49	71.0						
1543.	2.97	34.60			27.59	61.1						

CROMWELL 1, STATION 30, 16- ON LAT, 147-58W LONG, FEB. 29, 1964, 1500 G.C.T.
DRY BULB 23.0 WET BULB 20.3 WIND SPEED 30, DIR. 09 BAR. 17 WEATHER 50 VIS. 6 CLOUD TYPE 5, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.45	34.34			23.32	456.4	0.	23.45	34.34	23.32	456.4	0.000
10.	23.44	34.34			23.33	456.5	10.	23.44	34.34	23.33	456.5	0.046
49.	23.45	34.34			23.32	458.3	20.	23.44	34.34	23.33	457.0	0.092
75.	23.46	34.36			23.34	458.1	30.	23.44	34.34	23.33	457.4	0.139
104.	20.84	34.82			24.42	355.7	50.	23.47	34.34	23.32	459.1	0.231
128.	19.74	34.88			24.76	324.2	75.	23.46	34.36	23.34	458.1	0.346
157.	17.70	34.78			25.20	283.2	100.	21.24	34.76	24.26	370.6	0.451
181.	15.48	34.52			25.51	253.1	150.	18.26	34.82	25.09	293.0	0.618
205.	12.78	34.23			25.86	220.2	200.	13.32	34.28	25.79	226.7	0.749
231.	10.96	34.18			26.16	191.2	250.	10.77	34.35	26.33	175.8	0.850
259.	10.75	34.43			26.40	169.8	300.	9.77	34.46	26.59	151.6	0.933
275.	10.24	34.43			26.49	161.4	400.	8.37	34.51	26.86	127.8	1.074
309.	9.65	34.48			26.62	148.7	500.	7.44	34.52	27.00	115.1	1.197
412.	8.23	34.51			26.88	126.0	600.	6.77	34.53	27.10	106.4	1.308
516.	7.33	34.52			27.02	113.7	700.	6.11	34.53	27.19	98.8	1.412
625.	6.62	34.53			27.12	104.5	800.	5.49	34.52	27.26	92.0	1.508
821.	5.36	34.52			27.27	90.7	1000.	4.55	34.54	27.38	81.0	1.684
1028.	4.44	34.54			27.40	79.6	1200.	3.84	34.57	27.48	71.8	1.838
1227.	3.76	34.57			27.49	70.7	1500.	3.10	34.60	27.58	62.1	2.042
1536.	3.04	34.61			27.59	61.2						

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
CROMWELL 1, STATION 31, 17-30N LAT, 148- 0W LONG, MAR. 1, 1964, 0000 G.C.T.											
DRY BULB 22.5 WET BULB 19.4 WIND SPEED 24, DIR. 08 BAR. 19 WEATHER 02 VIS. 7 CLOUD TYPE 2, COVER 7											
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.32	34.32			23.35	454.2	0.	23.32	34.32	23.35	454.2	0.000
10.Δ	23.31	34.31			23.34	455.1	10.	23.31	34.31	23.34	455.1	0.046
30.Δ	23.31	34.32			23.35	455.1	20.	23.31	34.31	23.35	455.2	0.092
50.Δ	23.30	34.32			23.35	455.6	30.	23.31	34.32	23.35	455.1	0.138
76.	23.28	34.34			23.37	454.6	50.	23.30	34.32	23.35	455.6	0.230
100.Δ	23.00	34.55			23.61	432.6	75.	23.28	34.34	23.37	454.8	0.344
107.	22.18	34.72			23.98	398.3	100.	23.00	34.55	23.61	432.6	0.456
131.	19.84	34.72			24.61	338.4	150.	17.83	34.57	25.00	301.3	0.641
161.	16.62	34.47			25.22	281.1	200.	12.84	34.33	25.92	213.9	0.771
187.	13.65	34.36			25.78	227.1	250.	10.43	34.33	26.38	171.2	0.868
212.	12.26	34.31			26.02	204.7	300.	9.96	34.49	26.58	152.6	0.950
237.	10.85	34.29			26.27	181.4	400.	8.50	34.50	26.82	130.9	1.093
267.	10.16	34.41			26.48	161.4	500.	7.33	34.47	26.98	117.0	1.218
282.	10.14	34.46			26.53	157.7	600.	6.44	34.46	27.09	107.1	1.331
318.	9.70	34.51			26.64	147.5	700.	5.75	34.46	27.18	98.8	1.435
422.	8.18	34.48			26.86	127.6	800.	5.23	34.49	27.26	91.3	1.531
528.	7.07	34.47			27.01	113.8	1000.	4.42	34.53	27.39	79.7	1.704
633.	6.18	34.45			27.12	104.4	1200.	3.88	34.56	27.47	73.0	1.859
840.	5.06	34.50			27.29	88.5	1500.	3.05	34.60	27.58	61.8	2.064
1050.	4.26	34.54			27.41	77.6						
1251.	3.76	34.56			27.48	71.7						
1563.	2.90	34.61			27.60	59.7						

CROMWELL 1, STATION 32, 19- ON LAT, 148- 0W LONG, MAR. 1, 1964, 1100 G.C.T.												
DRY BULB 21.6 WET BULB 19.7 WIND SPEED 25, DIR. 09 BAR. 22 WEATHER 50 VIS. 7 CLOUD TYPE 5, COVER 8												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	22.67	34.79			23.89	402.5	0.	22.67	34.79	23.89	402.5	0.000
10.	22.68	34.78			23.88	403.9	10.	22.68	34.78	23.88	403.9	0.041
30.Δ	22.68	34.79			23.89	403.9	20.	22.68	34.78	23.88	404.1	0.082
50.	22.68	34.79			23.89	404.7	30.	22.68	34.79	23.89	403.9	0.122
76.	22.86	34.93			23.94	400.5	50.	22.68	34.79	23.89	404.7	0.204
106.	22.84	34.90			23.92	403.2	75.	22.85	34.92	23.94	400.6	0.305
130.	21.53	35.14			24.47	351.5	100.	22.93	34.90	23.90	405.4	0.407
161.	20.14	35.12			24.84	318.1	150.	20.64	35.16	24.73	327.6	0.592
186.	18.72	34.97			25.09	294.6	200.	17.71	34.82	25.22	282.2	0.745
211.	16.87	34.69			25.33	272.3	250.	13.85	34.32	25.71	235.9	0.876
236.	14.95	34.46			25.59	247.8	300.	11.01	34.25	26.21	188.3	0.983
266.	12.71	34.21			25.86	221.8	400.	9.34	34.49	26.68	144.9	1.151
281.	11.88	34.22			26.03	205.9	500.	8.12	34.48	26.87	128.3	1.289
316.	10.42	34.29			26.35	175.7	600.	6.94	34.43	27.00	115.9	1.412
420.	9.29	34.52			26.72	142.1	700.	6.08	34.44	27.12	104.7	1.524
525.	7.76	34.45			26.90	125.3	800.	5.40	34.47	27.23	94.9	1.624
631.	6.65	34.43			27.04	112.4	1000.	4.41	34.51	27.38	81.1	1.803
836.	5.20	34.48			27.26	91.7	1200.	3.78	34.56	27.48	71.6	1.957
1046.	4.24	34.52			27.40	78.8	1500.	2.98	34.60	27.59	61.3	2.159
1247.	3.66	34.57			27.50	69.7						
1558.	2.87	34.60			27.60	60.0						

TEMPERATURE ERROR TERM AT 400. METERS IS 0.13

CROMWELL 1, STATION 33, 20-34N LAT, 147-59W LONG, MAR. 1, 1964, 2200 G.C.T.												
DRY BULB 21.7 WET BULB 18.2 WIND SPEED 33, DIR. 09 BAR. 23 WEATHER 02 VIS. 6 CLOUD TYPE 6, COVER 8												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.65	34.86			23.95	396.9	0.	22.65	34.86	23.95	396.9	0.000
10.	22.64	34.85			23.94	397.7	10.	22.64	34.85	23.94	397.7	0.041
50.Δ	22.63	35.00			24.06	388.1	20.	22.64	34.87	23.96	396.3	0.081
74.	22.62	35.09			24.13	382.3	30.	22.63	34.91	23.99	394.2	0.120
103.	22.40	35.13			24.22	374.5	50.	22.63	35.00	24.06	388.1	0.199
127.	21.02	35.13			24.61	338.8	75.	22.63	35.09	24.13	382.4	0.296
156.	20.18	35.15			24.85	316.8	100.	22.46	35.13	24.20	376.3	0.392
180.	19.50	35.09			24.98	304.9	150.	20.32	35.15	24.81	320.1	0.567
204.	18.63	34.96			25.10	293.8	200.	18.80	34.99	25.08	295.9	0.722
230.	16.97	34.71			25.32	273.8	250.	15.36	34.51	25.53	253.6	0.861
258.	14.72	34.43			25.61	245.8	300.	11.95	34.16	25.97	212.1	0.978
273.	13.72	34.32			25.74	233.8	400.	7.97	34.05	26.55	155.8	1.164
306.	11.58	34.13			26.01	207.6	500.	6.22	34.13	26.86	127.0	1.307
407.	7.81	34.06			26.58	152.9	600.	5.56	34.26	27.04	110.1	1.426
509.	6.14	34.14			26.88	125.2	700.	5.11	34.36	27.17	98.1	1.532
610.	5.52	34.27			27.06	108.7	800.	4.73	34.43	27.27	89.4	1.626
807.	4.71	34.43			27.28	88.9	1000.	4.10	34.50	27.40	78.2	1.796
1013.	4.06	34.50			27.40	77.7	1200.	3.62	34.54	27.48	71.1	1.947
1207.	3.61	34.54			27.48	70.9	1500.	2.91	34.58	27.58	61.6	2.149
1513.	2.88	34.58			27.58	61.3						

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 34, 22- ON LAT, 147-53W LONG, MAR. 2, 1964, 0700 G.C.T.
DRY BULB 21.0 WET BULB 19.0 WIND SPEED 22, DIR. 08 BAR. 25 WEATHER 01 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.40	35.04			24.16	377.1	0.	22.40	35.04	24.16	377.1	0.000
10.Δ	22.38	35.02			24.15	378.4	10.	22.38	35.02	24.15	378.4	0.039
50.Δ	22.37	35.05			24.17	377.5	20.	22.37	35.02	24.15	378.6	0.077
72.	22.37	35.06			24.18	377.6	30.	22.37	35.02	24.15	378.5	0.115
100.	21.92	35.26			24.46	352.1	50.	22.37	35.05	24.17	377.5	0.191
123.	21.82	35.30			24.52	347.4	75.	22.33	35.08	24.21	375.0	0.286
151.	21.22	35.27			24.66	334.8	100.	21.92	35.26	24.46	352.1	0.377
175.	19.27	35.05			25.01	301.9	150.	21.26	35.27	24.65	335.5	0.551
199.	17.94	34.87			25.21	283.7	200.	17.88	34.86	25.21	282.8	0.706
222.	16.45	34.67			25.41	264.7	250.	14.64	34.45	25.65	242.4	0.839
250.	14.64	34.45			25.65	242.4	300.	10.88	34.11	26.12	196.7	0.950
264.	12.91	34.27			25.86	221.2	400.	9.07	34.25	26.54	158.1	1.129
297.	10.98	34.11			26.11	198.2	500.	7.09	34.23	26.82	131.2	1.275
397.	9.14	34.25			26.53	159.1	600.	6.41	34.35	27.01	114.3	1.398
497.	7.12	34.23			26.82	131.8	700.	5.78	34.42	27.15	102.0	1.508
596.	6.44	34.35			27.00	114.8	800.	5.22	34.46	27.25	92.9	1.606
791.	5.27	34.46			27.24	93.6	1000.	4.33	34.50	27.38	80.7	1.782
990.	4.36	34.50			27.37	81.2	1200.	3.68	34.54	27.47	71.8	1.936
1181.	3.78	34.54			27.46	72.8						
1479.	3.02	34.57			27.56	63.5						

CROMWELL 1, STATION 35, 23-32N LAT, 147-48W LONG, MAR. 2, 1964, 1700 G.C.T.
DRY BULB 21.0 WET BULB 18.0 WIND SPEED 26, DIR. 13 BAR. 24 WEATHER 01 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	21.52	35.24			24.55	339.2	0.	21.52	35.24	24.55	339.2	0.000
9.	21.54	35.23			24.54	340.8	10.	21.54	35.23	24.54	340.9	0.035
30.Δ	21.54	35.23			24.54	341.6	20.	21.54	35.23	24.54	341.5	0.069
50.Δ	21.54	35.23			24.54	342.3	30.	21.54	35.23	24.54	341.6	0.104
72.	21.46	35.29			24.61	336.7	50.	21.54	35.23	24.54	342.3	0.172
101.	21.40	35.29			24.62	336.2	75.	21.45	35.29	24.61	336.5	0.258
125.	21.34	35.29			24.64	335.5	100.	21.40	35.29	24.62	336.2	0.343
153.	21.00	35.30			24.74	326.9	150.	21.09	35.31	24.72	328.7	0.510
177.	19.06	35.03			25.05	298.3	200.	17.42	34.79	25.27	277.4	0.663
200.	17.42	34.79			25.27	277.4	250.	13.69	34.31	25.74	233.0	0.792
224.	15.55	34.54			25.51	254.4	300.	11.24	34.09	26.04	204.3	0.902
253.	13.49	34.29			25.76	230.8	400.	8.24	34.03	26.50	161.5	1.086
267.	12.64	34.19			25.86	222.0	500.	6.22	34.05	26.79	133.1	1.235
300.	11.24	34.09			26.04	204.3	600.	5.31	34.16	26.99	114.3	1.360
397.	8.32	34.03			26.49	162.5	700.	4.65	34.26	27.15	100.0	1.468
494.	6.30	34.04			26.78	134.5	800.	4.24	34.35	27.26	89.4	1.564
593.	5.36	34.15			26.98	115.4	1000.	3.89	34.49	27.41	76.5	1.732
783.	4.29	34.33			27.25	91.0	1200.	3.48	34.56	27.51	68.1	1.878
980.	3.93	34.48			27.40	77.3						
1170.	3.55	34.53			27.48	70.7						
1471.	2.86	34.59			27.59	60.1						

CROMWELL 1, STATION 36, 24-59N LAT, 147-52W LONG, MAR. 3, 1964, 0300 G.C.T.
DRY BULB 21.4 WET BULB 18.9 WIND SPEED 28, DIR. 09 BAR. 23 WEATHER 15 VIS. 7 CLOUD TYPE 6, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	21.08	35.31			24.73	322.7	0.	21.08	35.31	24.73	322.7	0.000
10.	21.07	35.32			24.74	322.0	10.	21.07	35.32	24.74	322.0	0.033
30.Δ	21.07	35.32			24.74	322.8	20.	21.07	35.32	24.74	322.2	0.065
50.Δ	21.06	35.31			24.73	324.0	30.	21.07	35.32	24.74	322.8	0.098
71.	21.06	35.31			24.73	324.8	50.	21.06	35.31	24.73	324.0	0.163
99.	20.07	35.16			24.88	311.2	75.	20.96	35.29	24.75	323.5	0.245
122.	19.16	35.07			25.05	295.9	100.	20.03	35.16	24.89	310.6	0.324
150.	18.14	34.89			25.17	285.3	150.	18.14	34.89	25.17	285.3	0.475
174.	17.16	34.74			25.30	274.2	200.	15.29	34.48	25.52	252.7	0.610
197.	15.46	34.50			25.50	254.6	250.	12.90	34.23	25.83	224.0	0.730
220.	14.30	34.36			25.65	241.1	300.	10.58	34.04	26.13	196.2	0.836
248.	13.03	34.24			25.82	225.3	400.	8.09	34.03	26.52	159.1	1.016
262.	12.14	34.14			25.91	216.1	500.	6.41	34.08	26.79	133.3	1.163
295.	10.75	34.05			26.10	198.5	600.	5.40	34.16	26.99	114.9	1.288
393.	8.24	34.03			26.50	161.2	700.	4.80	34.27	27.14	101.1	1.398
490.	6.54	34.07			26.77	135.4	800.	4.44	34.36	27.26	90.5	1.494
586.	5.50	34.15			26.96	117.1	1000.	3.89	34.49	27.42	76.2	1.663
774.	4.53	34.34			27.23	93.0	1200.	3.45	34.55	27.51	68.0	1.809
970.	3.96	34.48			27.40	77.6						
1156.	3.56	34.53			27.48	70.7						
1455.	3.01	34.57			27.56	63.3						

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 37, 26-30N LAT, 148- 0W LONG, MAR. 3, 1964, 1500 G.C.T.
DRY BULB 21.0 WET BULB 17.9 WIND SPEED 26, DIR. 10 BAR. 24 WEATHER 02 VIS. 6 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	21.49	35.28			24.59	335.5	0.	21.49	35.28	24.59	335.5	0.000
10.	21.48	35.23			24.59	335.6	10.	21.48	35.28	24.59	335.6	0.034
30.Δ	21.48	35.28			24.59	336.4	20.	21.48	35.28	24.59	336.1	0.068
50.Δ	21.46	35.29			24.61	335.9	30.	21.48	35.28	24.59	336.4	0.102
76.	21.24	35.29			24.67	331.1	50.	21.46	35.29	24.61	335.9	0.170
105.	20.86	35.28			24.76	323.0	75.	21.25	35.29	24.67	331.3	0.254
121.	20.35	35.20			24.84	316.2	100.	20.96	35.29	24.74	324.7	0.336
171.	19.39	35.14			25.05	298.2	150.	19.94	35.20	24.95	306.8	0.496
186.	18.44	34.95			25.14	289.3	200.	17.43	34.80	25.28	277.0	0.643
211.	16.67	34.70			25.38	267.1	250.	14.88	34.45	25.59	247.8	0.775
236.	15.38	34.54			25.55	251.1	300.	11.50	34.15	26.04	204.8	0.889
267.	13.72	34.33			25.75	232.9	400.	8.94	34.04	26.39	171.7	1.079
273.	12.94	34.29			25.87	220.6	500.	6.59	34.02	26.72	140.0	1.236
307.	11.40	34.12			26.04	205.1	600.	5.50	34.08	26.91	122.2	1.369
404.	8.87	34.04			26.41	170.4	700.	4.79	34.20	27.09	105.7	1.484
501.	6.57	34.02			26.73	139.7	800.	4.31	34.32	27.24	91.9	1.584
597.	5.53	34.08			26.91	122.8	1000.	3.74	34.47	27.41	76.1	1.754
787.	4.36	34.31			27.22	93.3	1200.	3.36	34.55	27.51	67.5	1.899
982.	3.78	34.46			27.40	77.1						
1171.	3.46	34.53			27.49	69.6						
1474.	2.97	34.56			27.56	63.6						

TEMPERATURE ERROR TERM AT 150. METERS IS 0.18
TEMPERATURE ERROR TERM AT 250. METERS IS 0.16
TEMPERATURE ERROR TERM AT 300. METERS IS 0.12

CROMWELL 1, STATION 38, 25- ON LAT, 151- 0W LONG, MAR. 4, 1964, 0900 G.C.T.
DRY BULB 22.0 WET BULB 19.0 WIND SPEED 19, DIR. 12 BAR. 23 WEATHER 01 VIS. 6 CLOUD TYPE , COVER 0

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.45	35.13			24.21	372.0	0.	22.45	35.13	24.21	372.0	0.000
11.	22.44	35.13			24.21	372.1	10.	22.44	35.13	24.21	372.1	0.038
30.Δ	22.44	35.13			24.21	372.8	20.	22.44	35.13	24.21	372.4	0.075
50.Δ	22.44	35.13			24.21	373.6	30.	22.44	35.13	24.21	372.8	0.113
75.	22.29	35.25			24.35	361.8	50.	22.44	35.13	24.21	373.6	0.188
105.	21.89	35.26			24.47	351.5	75.	22.29	35.25	24.35	361.8	0.281
130.	20.78	35.18			24.71	329.1	100.	22.00	35.27	24.44	353.7	0.371
159.	19.30	35.03			24.99	303.5	150.	19.73	35.08	24.91	310.7	0.538
185.	18.60	34.97			25.12	291.7	200.	17.98	34.88	25.20	284.0	0.688
209.	17.54	34.81			25.26	279.0	250.	15.12	34.49	25.57	249.6	0.823
234.	16.16	34.61			25.43	263.0	300.	11.51	34.12	26.02	206.7	0.938
264.	14.04	34.37			25.71	236.3	400.	8.74	34.04	26.43	168.4	1.127
279.	12.65	34.21			25.87	221.0	500.	6.56	34.02	26.73	139.2	1.282
314.	11.02	34.11			26.10	199.3	600.	5.30	34.10	26.95	118.6	1.413
418.	8.42	34.04			26.48	163.7	700.	4.69	34.22	27.11	103.5	1.525
523.	6.13	34.03			26.79	133.4	800.	4.28	34.33	27.24	91.3	1.623
627.	5.12	34.13			26.99	114.3	1000.	3.74	34.48	27.42	75.2	1.792
831.	4.20	34.36			27.28	88.1	1200.	3.31	34.54	27.51	67.0	1.936
1039.	3.66	34.50			27.45	73.2	1500.	2.74	34.59	27.60	58.7	2.127
1240.	3.23	34.55			27.53	65.9						
1549.	2.66	34.59			27.61	58.2						

CROMWELL 1, STATION 39, 25- 3N LAT, 154- 3W LONG, MAR. 4, 1964, 2400 G.C.T.
DRY BULB 23.8 WET BULB 20.1 WIND SPEED 18, DIR. 10 BAR. 22 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.66	35.21			24.21	371.9	0.	22.66	35.21	24.21	371.9	0.000
9.	22.66	35.18			24.19	374.4	10.	22.66	35.18	24.19	374.5	0.038
30.Δ	22.66	35.18			24.19	375.2	20.	22.67	35.17	24.18	375.4	0.076
50.Δ	22.58	35.18			24.21	373.8	30.	22.66	35.18	24.19	375.2	0.114
75.Δ	22.50	35.18			24.23	372.6	50.	22.58	35.18	24.21	373.8	0.189
101.	22.46	35.18			24.24	372.5	75.	22.50	35.18	24.23	372.6	0.283
125.	19.60	35.01			24.89	311.2	100.	22.49	35.18	24.24	373.1	0.377
155.	19.00	35.02			25.06	296.8	150.	19.04	35.02	25.05	297.3	0.546
179.	17.43	34.76			25.25	279.1	200.	16.67	34.68	25.37	267.3	0.688
203.	16.52	34.67			25.39	265.7	250.	13.92	34.39	25.75	232.4	0.814
227.	15.39	34.57			25.57	248.9	300.	11.71	34.18	26.03	206.0	0.925
256.	13.57	34.34			25.79	228.8	400.	8.76	34.08	26.46	165.7	1.112
270.	13.08	34.29			25.85	223.2	500.	6.16	34.02	26.78	134.1	1.264
304.	11.52	34.17			26.05	203.6	600.	5.08	34.11	26.98	115.2	1.390
405.	8.65	34.08			26.47	164.0	700.	4.55	34.22	27.13	101.3	1.499
507.	6.01	34.02			26.80	132.3	800.	4.22	34.33	27.25	90.3	1.596
609.	5.04	34.12			27.00	113.8	1000.	3.75	34.48	27.42	75.1	1.763
810.	4.20	34.34			27.26	89.4	1200.	3.24	34.54	27.52	66.5	1.907
1013.	3.72	34.49			27.43	74.4	1500.	2.70	34.58	27.60	59.0	2.098
1208.	3.22	34.54			27.52	66.3						
1514.	2.68	34.58			27.60	58.9						

TEMPERATURE ERROR TERM AT 150. METERS IS 0.11

ΔFROM BT DATA

Table 1.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 1, STATION 40, 25- ON LAT, 157- OW LONG, MAR. 5, 1964, 2000 G.C.T.
DRY BULB 22.8 WET BULB 20.2 WIND SPEED 13, DIR. 10 BAR. 22 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.56	35.29			24.30	363.4	0.	22.56	35.29	24.30	363.4	0.000
10.	22.52	35.29			24.31	362.7	10.	22.52	35.29	24.31	362.7	0.037
30.Δ	22.46	35.29			24.33	361.8	20.	22.49	35.29	24.32	362.3	0.074
50.Δ	22.40	35.30			24.35	360.2	30.	22.46	35.29	24.33	361.8	0.110
76.	22.10	35.30			24.44	353.2	50.	22.40	35.30	24.35	360.2	0.183
106.	20.14	35.08			24.80	319.1	75.	22.13	35.30	24.43	353.7	0.273
130.	18.75	34.92			25.04	297.1	100.	20.59	35.13	24.72	326.5	0.358
160.	17.08	34.79			25.35	268.2	150.	17.64	34.83	25.25	277.8	0.511
185.	15.58	34.65			25.59	245.9	200.	14.94	34.57	25.68	238.3	0.641
211.	14.52	34.52			25.72	233.7	250.	12.96	34.37	25.94	214.2	0.755
236.	13.45	34.40			25.86	221.6	300.	11.21	34.20	26.14	195.5	0.858
266.	12.45	34.34			26.01	207.4	400.	9.21	34.11	26.41	170.6	1.043
280.	12.03	34.27			26.04	205.0	500.	7.26	34.05	26.66	147.0	1.203
315.	10.59	34.17			26.22	187.4	600.	5.67	34.08	26.89	124.6	1.340
420.	9.04	34.11			26.44	168.2	700.	4.83	34.19	27.08	106.7	1.457
525.	6.71	34.04			26.72	140.5	800.	4.32	34.32	27.23	92.5	1.558
631.	5.35	34.11			26.95	118.7	1000.	3.69	34.46	27.41	75.9	1.728
835.	4.21	34.36			27.28	88.3	1200.	3.28	34.52	27.50	68.3	1.874
1047.	3.58	34.48			27.44	73.8	1500.	2.68	34.59	27.61	58.4	2.067
1247.	3.20	34.53			27.51	67.1						
1558.	2.58	34.59			27.62	57.3						

TEMPERATURE ERROR TERM AT 400. METERS IS 0.13

CROMWELL 1, STATION 41, 23-33N LAT, 157- 6W LONG, MAR. 6, 1964, 0600 G.C.T.
DRY BULB 22.9 WET BULB 20.2 WIND SPEED 21, DIR. 08 BAR. 19 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.91	35.26			24.18	375.1	0.	22.91	35.26	24.18	375.1	0.000
10.	22.90	35.24			24.16	376.7	10.	22.90	35.24	24.16	376.7	0.038
30.Δ	22.70	35.25			24.23	371.2	20.	22.81	35.24	24.19	374.5	0.076
50.	22.62	35.26			24.26	369.1	30.	22.70	35.25	24.23	371.2	0.114
76.	21.77	35.20			24.45	351.6	50.	22.62	35.26	24.26	369.1	0.188
106.	20.18	35.12			24.82	317.2	75.	21.82	35.20	24.44	352.5	0.279
131.	19.40	35.02			24.95	305.8	100.	20.50	35.14	24.75	323.7	0.364
161.	18.24	34.89			25.15	288.1	150.	18.68	34.94	25.07	294.9	0.520
186.	17.28	34.81			25.32	272.2	200.	16.40	34.72	25.46	259.6	0.660
211.	15.72	34.64			25.55	250.4	250.	14.34	34.49	25.74	233.6	0.784
236.	14.84	34.54			25.67	239.7	300.	12.83	34.35	25.94	215.0	0.897
266.	13.78	34.43			25.81	226.7	400.	9.91	34.14	26.31	180.2	1.097
281.	13.30	34.39			25.88	220.5	500.	7.20	34.05	26.66	146.3	1.262
317.	12.44	34.31			25.99	210.7	600.	5.57	34.13	26.94	119.5	1.396
422.	9.22	34.10			26.40	171.9	700.	4.86	34.26	27.13	102.2	1.508
518.	6.80	34.05			26.72	140.9	800.	4.55	34.36	27.24	91.8	1.606
633.	5.24	34.18			27.02	112.1	1000.	3.98	34.49	27.40	77.8	1.777
839.	4.52	34.40			27.28	89.1	1200.	3.49	34.53	27.48	70.5	1.928
1048.	3.84	34.50			27.43	75.4	1500.	2.84	34.58	27.58	61.0	2.128
1247.	3.40	34.53			27.49	69.4						
1557.	2.74	34.58			27.60	59.9						

CROMWELL 1, STATION 42, 22- 4N LAT, 156-58W LONG, MAR. 6, 1964, 1600 G.C.T.
DRY BULB 22.8 WET BULB 20.7 WIND SPEED 20, DIR. 07 BAR. 17 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 1

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.43	34.85			23.72	419.0	0.	23.43	34.85	23.72	419.0	0.000
10.	23.42	34.85			23.72	419.2	10.	23.42	34.85	23.72	419.2	0.043
50.Δ	23.42	34.92			23.77	415.6	20.	23.41	34.86	23.73	418.2	0.085
74.	23.54	34.96			23.77	417.0	30.	23.40	34.88	23.75	417.3	0.127
104.	23.54	35.14			23.90	405.2	50.	23.42	34.92	23.77	415.6	0.211
128.	22.72	35.18			24.17	380.6	75.	23.55	34.97	23.77	416.9	0.316
158.	21.08	35.12			24.58	342.2	100.	23.58	35.12	23.87	407.8	0.420
182.	19.42	35.02			24.95	308.0	150.	21.57	35.15	24.47	353.1	0.611
207.	18.24	34.90			25.15	288.9	200.	18.55	34.94	25.11	293.3	0.774
231.	17.05	34.75			25.33	272.7	250.	15.34	34.56	25.58	249.0	0.911
261.	14.30	34.45			25.72	235.7	300.	12.41	34.24	25.94	214.6	1.028
275.	13.30	34.33			25.83	224.7	400.	9.19	34.09	26.40	171.7	1.223
311.	12.18	34.23			25.98	211.5	500.	7.19	34.11	26.72	141.4	1.381
415.	8.73	34.08			26.46	165.5	600.	5.85	34.22	26.97	116.8	1.511
516.	6.98	34.13			26.76	137.5	700.	4.98	34.29	27.14	101.2	1.621
622.	5.60	34.24			27.02	112.1	800.	4.46	34.35	27.24	91.7	1.719
824.	4.38	34.36			27.26	90.2	1000.	3.87	34.45	27.39	78.7	1.891
1031.	3.81	34.47			27.41	77.1	1200.	3.42	34.54	27.50	68.6	2.040
1231.	3.35	34.55			27.52	67.3	1500.	2.78	34.58	27.59	59.9	2.236
1541.	2.70	34.58			27.60	59.3						

Δ FROM BT DATA

Table 2.--Original and derived oceanographic data for Townsend Cromwell cruise 2

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 2, STATION 1, 20-34N LAT, 157-16W LONG, MAR. 17, 1964, 0600 G.C.T. DRY BULB 23.9 WET BULB 21.1 WIND SPEED 17, DIR. 15 BAR. 18 WEATHER 02 VIS. 9 CLOUD TYPE , COVER												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.11	34.88			23.54	435.9	0.	24.11	34.88	23.54	435.9	0.000
9.	24.10	34.88			23.54	436.0	10.	24.10	34.88	23.54	436.0	0.044
47.	23.86	34.91			23.64	428.6	20.	24.05	34.88	23.56	435.1	0.088
73.	23.61	34.99			23.77	416.8	30.	24.00	34.89	23.58	433.4	0.132
94.	23.41	35.04			23.87	408.4	50.	23.83	34.92	23.65	427.3	0.219
119.	22.80	35.12			24.10	386.7	75.	23.60	34.99	23.78	416.2	0.325
143.	20.79	35.07			24.62	337.7	100.	23.35	35.06	23.90	405.2	0.428
166.	19.70	35.00			24.86	315.9	150.	20.44	35.05	24.71	330.1	0.614
189.	18.18	34.87			25.15	289.0	200.	17.69	34.81	25.22	282.1	0.768
214.	17.11	34.74			25.31	274.3	250.	14.89	34.51	25.64	243.4	0.901
237.	15.82	34.62			25.52	254.9	300.	12.23	34.30	26.02	207.0	1.014
261.	14.12	34.42			25.73	234.2	400.	8.79	34.12	26.48	163.5	1.201
285.	12.91	34.35			25.93	215.9	500.	6.77	34.20	26.84	129.2	1.349
380.	9.34	34.12			26.40	171.5	600.	5.69	34.32	27.08	107.1	1.468
467.	7.32	34.16			26.73	139.3	700.	5.14	34.40	27.21	95.2	1.570
561.	6.00	34.28			27.01	113.6	800.	4.81	34.46	27.29	88.1	1.663
747.	5.01	34.43			27.24	92.0	1000.	4.20	34.51	27.40	78.4	1.832
936.	4.38	34.50			27.37	80.9	1200.	3.65	34.55	27.49	70.5	1.982
1126.	3.86	34.53			27.45	74.1						
1460.	3.03	34.58			27.57	62.8						

CROMWELL 2, STATION 2, 19- 1N LAT, 156-59W LONG, MAR. 17, 1964, 1700 G.C.T. DRY BULB 23.3 WET BULB 20.3 WIND SPEED 16, DIR. 14 BAR. 17 WEATHER 00 VIS. 9 CLOUD TYPE 8, COVER 2												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.44	35.07			23.88	403.4	0.	23.44	35.07	23.88	403.4	0.000
10.	23.42	35.08			23.89	402.6	10.	23.42	35.08	23.89	402.6	0.041
30.[Δ]	23.00	35.11			24.04	389.6	20.	23.36	35.10	23.93	399.8	0.082
50.	20.76	35.06			24.62	334.3	30.	23.00	35.11	24.04	389.6	0.121
74.	19.50	35.01			24.92	307.0	50.	20.76	35.06	24.62	334.3	0.194
98.	18.63	34.92			25.07	293.1	75.	19.46	35.01	24.93	306.3	0.275
122.	17.54	34.80			25.25	276.9	100.	18.53	34.91	25.09	291.7	0.350
147.	16.88	34.74			25.36	266.9	150.	16.75	34.72	25.38	265.2	0.490
173.	15.43	34.56			25.56	248.9	200.	13.53	34.37	25.82	224.4	0.614
197.	13.63	34.38			25.80	225.5	250.	11.95	34.24	26.03	204.7	0.722
220.	13.02	34.32			25.88	218.6	300.	10.40	34.17	26.25	184.0	0.820
246.	12.04	34.25			26.02	205.8	400.	7.57	34.16	26.70	141.8	0.984
271.	11.49	34.22			26.10	198.6	500.	6.07	34.21	26.94	119.1	1.116
296.	10.54	34.17			26.23	186.1	600.	5.39	34.34	27.13	101.8	1.228
392.	7.74	34.16			26.67	144.2	700.	4.91	34.43	27.25	90.4	1.325
493.	6.14	34.20			26.92	120.5	800.	4.56	34.48	27.34	82.9	1.413
591.	5.44	34.33			27.11	103.0	1000.	3.96	34.53	27.44	74.0	1.571
788.	4.60	34.48			27.33	83.6	1200.	3.42	34.57	27.52	66.6	1.714
987.	3.99	34.53			27.44	74.4						
1186.	3.51	34.56			27.51	68.1						
1415.	2.76	34.60			27.61	57.8						

CROMWELL 2, STATION 3, 17-30N LAT, 157- 1W LONG, MAR. 18, 1964, 0200 G.C.T. DRY BULB 24.0 WET BULB 21.6 WIND SPEED 20, DIR. 19 BAR. 15 WEATHER 03 VIS. 9 CLOUD TYPE 6, COVER 7												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.81	34.59			23.41	448.5	0.	23.81	34.59	23.41	448.4	0.000
10.	23.75	34.60			23.43	446.4	10.	23.75	34.60	23.43	446.4	0.046
47.	23.64	34.60			23.47	444.7	20.	23.70	34.60	23.45	445.4	0.090
71.	23.65	34.61			23.47	445.2	30.	23.67	34.60	23.46	444.7	0.135
93.	23.71	34.68			23.51	442.7	50.	23.64	34.60	23.47	444.9	0.225
116.	23.50	34.80			23.66	429.1	75.	23.67	34.62	23.47	445.2	0.337
139.	22.50	35.10			24.17	380.8	100.	23.70	34.70	23.53	441.0	0.449
164.	20.57	35.08			24.69	332.1	150.	21.70	35.12	24.41	358.1	0.650
187.	18.88	34.94			25.02	300.7	200.	17.77	34.80	25.19	285.1	0.812
209.	16.91	34.68			25.31	273.9	250.	12.58	34.28	25.94	213.7	0.938
234.	13.98	34.35			25.71	235.7	300.	9.91	34.20	26.36	173.7	1.036
257.	12.07	34.27			26.03	205.2	400.	7.94	34.30	26.75	136.9	1.192
279.	10.77	34.21			26.22	186.8	500.	7.11	34.42	26.97	117.8	1.321
373.	8.22	34.26			26.68	143.6	600.	6.09	34.45	27.13	102.9	1.432
467.	7.51	34.40			26.90	124.3	700.	5.57	34.49	27.23	94.1	1.532
561.	6.36	34.43			27.08	107.4	800.	5.14	34.52	27.30	87.7	1.624
748.	5.41	34.51			27.26	91.2	1000.	4.32	34.54	27.41	77.9	1.791
939.	4.50	34.53			27.38	80.2	1200.	3.77	34.56	27.49	71.1	1.942
1131.	4.02	34.56			27.46	73.9						
1424.	3.39	34.59			27.54	66.2						

[Δ]FROM BT DATA

Table 2.--Continued

CROMWELL 2, STATION 4, 16- ON LAT, 157- OW LONG, MAR. 18, 1964, 1200 G.C.T.
DRY BULB 24.0 WET BULB 21.4 WIND SPEED 18, DIR. 06 BAR. 17 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.27	34.43			23.15	472.9	0.	24.27	34.43	23.15	472.9	0.000
8.	24.26	34.42			23.15	473.7	10.	24.25	34.42	23.15	473.6	0.048
30.Δ	24.08	34.42			23.20	469.4	20.	24.18	34.41	23.17	472.2	0.096
51.	23.86	34.46			23.30	461.1	30.	24.08	34.42	23.20	469.4	0.143
76.	23.65	34.57			23.44	448.3	50.	23.87	34.46	23.29	461.6	0.237
100.	23.82	35.04			23.75	420.1	75.	23.65	34.56	23.43	449.0	0.352
125.	21.37	35.01			24.42	356.5	100.	23.82	35.04	23.75	420.1	0.461
150.	20.28	35.07			24.76	324.9	150.	20.28	35.07	24.76	324.9	0.649
174.	18.87	34.97			25.05	297.9	200.	17.13	34.70	25.27	277.0	0.801
199.	17.26	34.72			25.26	278.7	250.	11.35	34.18	26.09	198.6	0.921
224.	13.88	34.33			25.71	234.9	300.	11.26	34.67	26.49	162.3	1.012
249.	11.42	34.18			26.08	199.8	400.	10.01	34.67	26.71	142.7	1.165
275.	10.52	34.30			26.34	175.8	500.	8.63	34.58	26.87	128.7	1.302
299.	11.25	34.66			26.48	162.7	600.	7.27	34.48	26.99	117.2	1.427
398.	10.04	34.67			26.71	143.1	700.	6.48	34.47	27.09	108.0	1.540
499.	8.64	34.58			26.87	128.8	800.	5.97	34.50	27.18	100.1	1.646
597.	7.30	34.48			26.99	117.5	1000.	5.07	34.54	27.32	87.4	1.835
798.	5.98	34.50			27.18	100.2	1200.	4.15	34.57	27.45	75.6	2.000
998.	5.08	34.54			27.32	87.6						
1133.	4.31	34.56			27.43	77.5						
1499.	3.35	34.58			27.54	67.0						

CROMWELL 2, STATION 5, 14-30N LAT, 157- 4W LONG, MAR. 18, 1964, 2100 G.C.T.
DRY BULB 24.8 WET BULB 22.5 WIND SPEED 14, DIR. 07 BAR. 16 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.80	34.43			22.99	488.1	0.	24.80	34.43	22.99	488.1	0.000
9.	24.77	34.41			22.99	489.0	10.	24.77	34.41	22.99	489.1	0.050
49.	24.68	34.41			23.01	488.0	20.	24.74	34.40	22.99	489.3	0.099
76.	24.63	34.43			23.04	486.2	30.	24.72	34.40	22.99	489.1	0.148
100.	24.46	34.45			23.11	480.8	50.	24.68	34.41	23.01	488.0	0.247
123.	18.56	34.75			24.96	304.6	75.	24.63	34.43	23.04	486.3	0.369
149.	14.44	34.39			25.64	239.8	100.	24.46	34.45	23.11	480.8	0.491
175.	12.23	34.29			26.01	204.7	150.	14.32	34.38	25.66	238.1	0.672
190.	11.75	34.36			26.16	191.1	200.	11.19	34.35	26.26	181.9	0.778
220.	10.15	34.32			26.42	166.9	250.	9.78	34.41	26.55	154.3	0.863
248.	9.81	34.41			26.54	155.2	300.	9.13	34.48	26.71	139.8	0.937
276.	9.37	34.46			26.66	144.9	400.	8.55	34.59	26.89	124.7	1.071
298.	9.14	34.48			26.71	140.2	500.	7.77	34.58	27.00	115.6	1.192
397.	8.57	34.59			26.89	125.1	600.	6.85	34.55	27.11	105.9	1.304
496.	7.81	34.58			26.99	116.0	700.	6.14	34.54	27.20	97.8	1.407
595.	6.89	34.55			27.10	106.4	800.	5.56	34.55	27.27	90.8	1.502
792.	5.60	34.55			27.27	91.3	1000.	4.59	34.56	27.39	79.8	1.675
989.	4.64	34.56			27.39	80.3	1200.	3.84	34.57	27.49	71.2	1.828
1186.	3.89	34.57			27.48	72.0						
1484.	3.10	34.61			27.59	61.6						

CROMWELL 2, STATION 6, 12-56N LAT, 157- OW LONG, MAR. 19, 1964, 0600 G.C.T.
DRY BULB 24.9 WET BULB 22.7 WIND SPEED 13, DIR. 07 BAR. 13 WEATHER 02 VIS. 8 CLOUD TYPE 4, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.70	34.35			22.96	491.0	0.	24.70	34.35	22.96	491.0	0.000
9.	24.70	34.35			22.96	491.3	10.	24.69	34.35	22.96	491.2	0.050
30.Δ	24.54	34.35			23.01	487.6	20.	24.62	34.35	22.98	489.6	0.099
48.	24.48	34.36			23.04	485.8	30.	24.54	34.35	23.01	487.6	0.149
75.Δ	24.44	34.36			23.05	485.7	50.	24.50	34.35	23.03	486.9	0.247
97.	23.45	34.67			23.57	436.3	75.	24.44	34.36	23.05	485.7	0.369
120.	18.04	34.67			25.03	297.9	100.	22.82	34.69	23.77	417.7	0.483
145.	14.38	34.40			25.66	237.8	150.	13.64	34.35	25.78	227.0	0.645
169.	11.42	34.20			26.10	196.4	200.	10.41	34.23	26.30	177.5	0.747
184.	10.80	34.20			26.21	185.9	250.	9.80	34.48	26.60	149.9	0.830
215.	10.15	34.28			26.38	169.7	300.	9.25	34.54	26.74	137.3	0.902
238.	9.73	34.41			26.56	153.7	400.	8.48	34.58	26.89	124.2	1.034
264.	9.87	34.54			26.63	146.9	500.	7.62	34.57	27.01	113.8	1.154
288.	9.40	34.54			26.71	139.8	600.	6.81	34.55	27.11	105.7	1.265
383.	8.62	34.58			26.87	126.3	700.	6.10	34.54	27.20	97.8	1.368
477.	7.82	34.58			26.99	115.8	800.	5.52	34.54	27.27	90.9	1.463
571.	7.04	34.55			27.08	108.1	1000.	4.65	34.56	27.39	80.3	1.637
758.	5.74	34.54			27.24	93.5	1200.	3.86	34.58	27.49	70.9	1.790
951.	4.85	34.56			27.37	82.6						
1140.	4.10	34.57			27.46	74.2						
1391.	3.19	34.61			27.58	62.1						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.12

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 7, 11-24N LAT, 156-56W LONG, MAR. 19, 1964, 1500 G.C.T.
DRY BULB 24.8 WET BULB 22.8 WIND SPEED 14, DIR. 07 BAR. 11 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.21	34.34			22.80	506.5	0.	25.21	34.34	22.80	506.5	0.000
11.	25.18	34.35			22.82	505.3	10.	25.18	34.35	22.82	505.4	0.051
49.	25.23	34.35			22.80	508.2	20.	25.23	34.34	22.80	507.7	0.102
78.	24.59	34.53			23.13	477.9	30.	25.25	34.34	22.78	509.1	0.154
100.	21.26	35.09			24.51	346.9	50.	25.25	34.35	22.80	508.8	0.256
122.	18.73	34.89			25.02	298.5	75.	24.77	34.49	23.05	485.6	0.391
149.	13.69	34.38			25.79	225.4	100.	21.26	35.09	24.51	346.9	0.486
173.	12.09	34.61			26.29	178.6	150.	13.58	34.38	25.82	223.0	0.630
188.	11.74	34.67			26.40	168.1	200.	11.54	34.70	26.47	162.2	0.727
220.	11.28	34.74			26.54	155.5	250.	10.92	34.75	26.61	149.1	0.806
246.	10.97	34.75			26.61	149.9	300.	10.21	34.72	26.71	140.4	0.879
275.	10.58	34.74			26.67	144.5	400.	9.16	34.66	26.84	129.5	1.015
297.	10.25	34.72			26.71	140.8	500.	8.18	34.61	26.96	119.3	1.140
396.	9.20	34.66			26.84	129.9	600.	7.09	34.56	27.08	108.9	1.255
487.	8.33	34.62			26.95	120.8	700.	6.32	34.54	27.17	100.7	1.361
585.	7.22	34.56			27.06	110.2	800.	5.70	34.54	27.25	93.4	1.460
778.	5.84	34.54			27.23	95.1	1000.	4.59	34.55	27.39	80.2	1.635
967.	4.74	34.55			27.37	82.1	1200.	3.81	34.58	27.49	70.6	1.788
1169.	3.96	34.58			27.48	72.0						
1463.	3.19	34.61			27.58	62.6						

CROMWELL 2, STATION 8, 11-34N LAT, 154- 2W LONG, MAR. 20, 1964, 0900 G.C.T.
DRY BULB 25.4 WET BULB 22.8 WIND SPEED 14, DIR. 09 BAR. 12 WEATHER 00 VIS. 9 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.43	34.32			22.72	514.3	0.	25.43	34.32	22.72	514.3	0.000
10.	25.44	34.33			22.72	514.3	10.	25.44	34.33	22.72	514.3	0.052
30.Δ	25.44	34.38			22.76	511.5	20.	25.45	34.35	22.74	513.3	0.104
48.	25.38	34.44			22.82	506.1	30.	25.44	34.38	22.76	511.5	0.156
74.	25.34	34.48			22.87	503.1	50.	25.48	34.44	22.79	509.0	0.258
99.	19.70	34.65			24.59	338.9	75.	25.18	34.49	22.92	497.6	0.335
120.	14.12	34.38			25.70	233.2	100.	19.41	34.64	24.66	332.4	0.490
143.	11.71	34.33			26.14	191.4	150.	11.57	34.40	26.22	183.9	0.620
168.	11.42	34.57			26.38	169.2	200.	10.64	34.60	26.55	154.3	0.705
182.	10.75	34.55			26.49	159.3	250.	10.35	34.68	26.66	144.6	0.780
212.	10.72	34.64			26.56	152.8	300.	9.88	34.68	26.75	137.3	0.852
236.	10.42	34.66			26.63	146.7	400.	8.85	34.63	26.87	126.4	0.985
263.	10.29	34.69			26.68	142.9	500.	7.89	34.59	26.99	116.4	1.107
285.	10.04	34.69			26.72	139.2	600.	7.06	34.55	27.08	108.7	1.221
377.	9.09	34.64			26.84	129.2	700.	6.32	34.55	27.17	100.1	1.326
467.	8.19	34.61			26.96	119.0	800.	5.61	34.55	27.27	91.4	1.423
559.	7.38	34.56			27.04	112.1	1000.	4.52	34.57	27.41	78.0	1.595
743.	6.02	34.55			27.22	96.3	1200.	3.78	34.59	27.50	69.3	1.744
927.	4.81	34.56			27.37	81.8						
1113.	4.16	34.59			27.47	73.2						
1395.	3.34	34.60			27.56	64.7						

TEMPERATURE ERROR TERM AT 150. METERS IS 0.12

CROMWELL 2, STATION 9, 13- 1N LAT, 154- 2W LONG, MAR. 20, 1964, 1800 G.C.T.
DRY BULB 24.9 WET BULB 22.2 WIND SPEED 22, DIR. 10 BAR. 12 WEATHER 03 VIS. 8 CLOUD TYPE 6, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.79	34.32			22.91	495.8	0.	24.79	34.32	22.91	495.7	0.000
9.	24.80	34.32			22.91	496.4	10.	24.80	34.32	22.91	496.5	0.050
30.Δ	24.80	34.33			22.92	496.5	20.	24.81	34.32	22.91	496.8	0.100
52.Δ	24.66	34.35			22.97	491.9	30.	24.80	34.33	22.92	496.5	0.151
75.Δ	24.52	34.39			23.05	485.8	50.	24.68	34.35	22.97	492.4	0.250
101.	21.78	34.70			24.07	388.8	75.	24.52	34.39	23.05	485.8	0.373
126.	19.87	34.95			24.78	322.4	100.	21.90	34.69	24.03	393.1	0.484
152.	16.15	34.55			25.39	264.6	150.	16.46	34.59	25.35	268.5	0.651
176.	13.05	34.31			25.87	218.7	200.	11.70	34.40	26.19	187.9	0.766
191.	12.17	34.37			26.09	198.1	250.	10.81	34.61	26.53	157.4	0.853
224.	10.87	34.47			26.41	168.2	300.	10.26	34.65	26.65	146.2	0.929
250.	10.81	34.61			26.53	157.4	400.	9.11	34.60	26.81	132.9	1.070
276.	10.58	34.64			26.59	151.8	500.	7.93	34.55	26.95	120.1	1.198
300.	10.26	34.65			26.65	146.2	600.	6.96	34.54	27.08	108.2	1.313
399.	9.12	34.60			26.81	133.0	700.	6.20	34.54	27.18	99.1	1.418
499.	7.94	34.55			26.95	120.2	800.	5.58	34.54	27.26	91.9	1.515
598.	6.98	34.54			27.08	108.4	1000.	4.64	34.55	27.38	81.1	1.690
795.	5.61	34.54			27.26	92.2	1200.	3.92	34.57	27.48	72.3	1.845
993.	4.67	34.55			27.38	81.5						
1191.	3.98	34.58			27.48	72.4						
1489.	3.16	34.59			27.57	63.8						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 10, 14-30N LAT, 153-58W LONG, MAR. 21, 1964, 0200 G.C.T.
DRY BULB 25.0 WET BULB 22.5 WIND SPEED 16, DIR. 10 BAR. 11 WEATHER 02 VIS. 8 CLOUD TYPE 6, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.72	34.40			22.99	488.0	0.	24.72	34.40	22.99	488.0	0.000
9.Δ	24.60	34.38			23.02	486.3	10.	24.60	34.38	23.02	486.3	0.050
30.Δ	24.58	34.38			23.02	486.5	20.	24.57	34.38	23.02	486.1	0.099
51.	24.53	34.38			23.04	485.9	30.	24.58	34.38	23.02	486.5	0.148
78.	23.50	34.47			23.41	451.4	50.	24.54	34.38	23.03	486.2	0.246
102.	21.56	35.05			24.40	357.8	75.	23.67	34.44	23.34	458.0	0.364
126.	20.46	35.13			24.76	324.3	100.	21.72	35.00	24.32	365.5	0.468
153.	18.80	34.94			25.05	297.6	150.	19.01	34.97	25.02	300.4	0.636
178.	16.81	34.69			25.34	270.0	200.	14.69	34.43	25.62	243.4	0.773
193.	15.30	34.50			25.54	251.1	250.	10.75	34.17	26.20	188.4	0.882
226.	12.61	34.25			25.91	216.0	300.	9.27	34.28	26.53	156.9	0.969
253.	10.55	34.17			26.23	185.4	400.	7.92	34.41	26.84	128.8	1.113
282.	9.62	34.17			26.39	170.5	500.	7.01	34.46	27.01	113.5	1.235
304.	9.20	34.31			26.57	153.8	600.	6.22	34.47	27.13	103.1	1.345
405.	7.87	34.40			26.84	128.6	700.	5.63	34.49	27.21	95.3	1.445
508.	6.95	34.46			27.02	112.5	800.	5.16	34.51	27.29	88.7	1.538
609.	6.16	34.47			27.13	102.3	1000.	4.33	34.55	27.41	77.4	1.706
811.	5.11	34.51			27.30	88.1	1200.	3.69	34.56	27.49	70.4	1.856
1012.	4.29	34.55			27.42	76.9	1500.	2.93	34.58	27.58	61.8	2.057
1215.	3.65	34.56			27.49	70.0						
1518.	2.89	34.58			27.58	61.5						

CROMWELL 2, STATION 11, 16- 2N LAT, 154- 2W LONG, MAR. 21, 1964, 1100 G.C.T.
DRY BULB 24.2 WET BULB 22.6 WIND SPEED 14, DIR. 11 BAR. 15 WEATHER 01 VIS. 8 CLOUD TYPE 0, COVER 0

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.02	34.84			23.54	436.3	0.	24.02	34.84	23.54	436.3	0.000
11.	23.97	34.84			23.55	435.3	10.	23.97	34.84	23.55	435.4	0.044
50.Δ	23.84	34.86			23.60	431.7	20.	23.93	34.84	23.56	434.4	0.088
75.Δ	23.83	34.88			23.62	431.0	30.	23.89	34.85	23.58	433.4	0.131
102.	22.58	35.09			24.14	382.3	50.	23.84	34.86	23.60	431.7	0.219
126.	20.48	35.05			24.69	330.6	75.	23.83	34.88	23.62	431.0	0.327
152.	18.34	34.89			25.12	290.1	100.	22.71	35.08	24.09	386.9	0.430
177.	16.25	34.66			25.45	259.6	150.	18.50	34.91	25.09	292.8	0.601
193.	14.75	34.50			25.66	239.5	200.	14.07	34.43	25.75	230.8	0.733
225.	11.95	34.24			26.03	204.4	250.	10.61	34.18	26.23	185.6	0.838
250.	10.61	34.18			26.23	185.6	300.	9.21	34.28	26.54	156.1	0.925
277.	9.84	34.21			26.38	171.0	400.	7.64	34.31	26.81	131.7	1.070
303.	9.13	34.29			26.56	154.2	500.	6.89	34.41	26.99	115.0	1.194
401.	7.63	34.31			26.81	131.7	600.	6.35	34.48	27.12	104.3	1.305
505.	6.97	34.42			27.00	114.3	700.	5.80	34.50	27.20	96.8	1.407
605.	6.33	34.48			27.12	103.9	800.	5.29	34.50	27.27	90.9	1.502
805.	5.26	34.50			27.27	90.7	1000.	4.48	34.54	27.39	80.0	1.674
1008.	4.45	34.54			27.39	79.6	1200.	3.84	34.57	27.48	71.5	1.828
1209.	3.81	34.57			27.49	71.2	1500.	3.00	34.60	27.59	61.3	2.030
1510.	2.98	34.60			27.59	61.0						

CROMWELL 2, STATION 12, 17-33N LAT, 154- 2W LONG, MAR. 21, 1964, 2000 G.C.T.
DRY BULB 22.9 WET BULB 20.9 WIND SPEED 14, DIR. 05 BAR. 16 WEATHER 02 VIS. 8 CLOUD TYPE 4, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.45	34.34			23.32	456.4	0.	23.45	34.34	23.32	456.4	0.000
10.	23.54	34.56			23.46	443.4	10.	23.54	34.56	23.46	443.4	0.046
30.Δ	23.50	34.58			23.49	441.6	20.	23.54	34.60	23.50	440.5	0.090
49.	23.45	34.60			23.52	439.5	30.	23.50	34.58	23.49	441.6	0.135
76.	23.36	34.61			23.55	437.3	50.	23.45	34.60	23.52	439.4	0.224
100.	23.38	34.67			23.59	434.5	75.	23.36	34.61	23.55	437.4	0.334
122.	21.77	34.95			24.26	371.3	100.	23.38	34.67	23.59	434.5	0.444
148.	20.58	35.05			24.66	333.9	150.	20.44	35.04	24.70	330.9	0.637
173.	18.67	34.89			25.04	298.8	200.	16.54	34.65	25.37	267.7	0.787
188.	17.66	34.79			25.21	282.5	250.	12.30	34.24	25.96	211.4	0.908
219.	14.69	34.42			25.61	244.8	300.	10.42	34.36	26.40	170.5	1.005
246.	12.61	34.26			25.92	215.8	400.	8.48	34.36	26.72	140.9	1.162
273.	10.89	34.21			26.20	188.7	500.	6.69	34.33	26.96	118.3	1.292
297.	10.48	34.35			26.38	171.9	600.	5.98	34.38	27.09	106.3	1.406
395.	8.59	34.36			26.70	142.3	700.	5.43	34.44	27.20	96.3	1.508
496.	6.73	34.33			26.95	118.9	800.	4.98	34.48	27.29	88.3	1.602
594.	6.02	34.38			27.08	106.9	1000.	4.19	34.52	27.41	77.6	1.769
791.	5.02	34.48			27.28	88.9	1200.	3.62	34.56	27.50	69.3	1.918
991.	4.22	34.52			27.40	78.0						
1191.	3.68	34.57			27.50	69.5						
1493.	3.03	34.59			27.58	62.3						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 13, 19- 5N LAT, 154- 0W LONG, MAR. 22, 1964, 0500 G.C.T.
DRY BULB 23.7 WET BULB 21.1 WIND SPEED 21, DIR. 09 BAR. 14 WEATHER 50 VIS. 7 CLOUD TYPE 6, COVER 8

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.47	34.66			23.56	433.9	0.	23.47	34.66	23.56	433.9	0.000
10.Δ	23.46	34.66			23.56	434.0	10.	23.46	34.66	23.56	434.0	0.044
30.Δ	23.38	34.69			23.61	430.4	20.	23.43	34.67	23.58	432.8	0.088
50.Δ	23.28	34.78			23.71	421.9	30.	23.38	34.69	23.61	430.4	0.131
75.Δ	23.27	34.79			23.72	421.8	50.	23.28	34.78	23.71	421.9	0.217
99.	23.26	34.79			23.72	422.4	75.	23.27	34.79	23.72	421.8	0.323
122.	23.00	34.92			23.89	406.8	100.	23.26	34.79	23.72	422.2	0.430
146.	21.69	35.05			24.36	362.9	150.	21.37	35.03	24.43	356.1	0.626
172.	19.78	34.89			24.75	326.1	200.	17.97	34.75	25.11	293.2	0.790
186.	19.25	34.88			24.88	314.1	250.	12.18	34.23	25.98	209.9	0.916
219.	15.71	34.51			25.46	259.9	300.	10.20	34.19	26.31	178.8	1.014
244.	12.70	34.26			25.90	217.4	400.	7.50	34.10	26.66	145.4	1.178
270.	10.96	34.19			26.17	191.4	500.	6.29	34.25	26.94	118.9	1.311
293.	10.41	34.20			26.28	181.6	600.	5.66	34.34	27.10	105.1	1.424
392.	7.64	34.09			26.63	147.9	700.	5.26	34.42	27.21	95.5	1.526
490.	6.38	34.24			26.92	120.7	800.	4.96	34.48	27.29	88.5	1.619
588.	5.71	34.33			27.08	106.5	1000.	4.27	34.53	27.41	77.7	1.787
784.	5.02	34.47			27.27	89.6	1200.	3.67	34.57	27.50	69.5	1.936
980.	4.34	34.53			27.40	78.7						
1176.	3.73	34.56			27.49	70.7						
1475.	3.01	34.60			27.59	61.2						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.11

CROMWELL 2, STATION 14, 20-31N LAT, 154- 0W LONG, MAR. 23, 1964, 0300 G.C.T.
DRY BULB 23.5 WET BULB 20.4 WIND SPEED 17, DIR. 10 BAR. 17 WEATHER 03 VIS. 9 CLOUD TYPE 4, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.54	34.68			23.56	434.4	0.	23.54	34.68	23.56	434.4	0.000
10.Δ	23.55	34.69			23.56	434.3	10.	23.55	34.69	23.56	434.3	0.044
30.Δ	23.55	34.69			23.56	435.1	20.	23.55	34.69	23.56	434.6	0.088
50.Δ	23.55	34.69			23.56	435.8	30.	23.55	34.69	23.56	435.1	0.132
75.Δ	23.54	34.69			23.56	436.5	50.	23.55	34.69	23.56	435.8	0.220
102.	23.49	34.69			23.58	436.2	75.	23.54	34.69	23.56	436.5	0.329
125.	20.36	34.62			24.40	358.6	100.	23.56	34.69	23.56	438.0	0.440
151.	16.52	34.84			25.52	251.7	150.	16.66	34.84	25.49	255.0	0.614
177.	14.36	34.34			25.62	242.6	200.	12.57	34.22	25.90	216.5	0.733
192.	13.00	34.24			25.82	223.3	250.	10.90	34.18	26.17	190.8	0.836
226.	11.65	34.22			26.07	200.4	300.	8.77	34.12	26.49	160.7	0.924
266.	10.23	34.15			26.27	181.7	400.	6.59	34.06	26.76	135.6	1.074
280.	9.28	34.14			26.42	167.2	500.	5.61	34.14	26.94	118.1	1.202
304.	8.72	34.12			26.49	160.3	600.	5.10	34.28	27.12	102.5	1.313
404.	6.52	34.06			26.76	134.7	700.	4.84	34.39	27.23	92.4	1.412
506.	5.58	34.15			26.96	117.1	800.	4.65	34.46	27.31	85.6	1.502
607.	5.07	34.29			27.13	101.6	1000.	4.01	34.52	27.42	75.6	1.665
809.	4.64	34.47			27.32	85.1	1200.	3.55	34.55	27.49	69.5	1.812
1010.	3.98	34.52			27.43	75.3	1500.	2.96	34.58	27.58	62.2	2.012
1211.	3.53	34.55			27.50	69.3						
1512.	2.94	34.58			27.58	62.0						

CROMWELL 2, STATION 15, 22- 0N LAT, 153-58W LONG, MAR. 23, 1964, 1200 G.C.T.
DRY BULB 21.0 WET BULB 19.8 WIND SPEED 16, DIR. 10 BAR. 20 WEATHER 25 VIS. 9 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.39	34.84			23.72	418.7	0.	23.39	34.84	23.72	418.7	0.000
10.	23.40	34.85			23.72	418.6	10.	23.40	34.85	23.72	418.6	0.043
94.	23.36	34.89			23.77	417.8	20.	23.42	34.86	23.73	418.6	0.085
116.	23.22	34.86			23.78	416.9	30.	23.44	34.87	23.73	418.6	0.127
140.	23.12	35.08			23.98	399.2	50.	23.44	34.89	23.74	418.5	0.211
164.	22.16	35.14			24.30	369.6	75.	23.41	34.90	23.76	418.2	0.317
177.	20.93	35.14			24.64	337.5	100.	23.32	34.87	23.76	418.3	0.422
208.	18.84	34.94			25.03	300.5	150.	22.88	35.12	24.08	390.0	0.626
233.	17.71	34.82			25.22	283.0	200.	19.29	35.00	24.97	306.6	0.801
257.	15.88	34.61			25.49	257.5	250.	16.43	34.68	25.42	264.8	0.945
281.	14.39	34.41			25.67	241.0	300.	13.27	34.31	25.82	226.3	1.069
374.	9.68	34.13			26.35	176.2	400.	8.84	34.12	26.47	164.3	1.266
468.	7.17	34.13			26.73	139.4	500.	6.43	34.13	26.83	129.7	1.415
551.	5.47	34.14			26.96	117.0	600.	5.12	34.20	27.05	108.6	1.535
750.	4.94	34.42			27.24	91.9	700.	4.85	34.34	27.19	95.9	1.638
938.	4.20	34.48			27.37	80.2	800.	4.74	34.45	27.29	88.0	1.731
1130.	3.75	34.52			27.45	73.5	1000.	4.04	34.49	27.40	77.8	1.899
1423.	3.08	34.57			27.56	63.9	1200.	3.52	34.54	27.49	70.1	2.049

TEMPERATURE ERROR TERM AT 600. METERS IS 0.16
TEMPERATURE ERROR TERM AT 700. METERS IS 0.17

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 16, 23-31N LAT, 154- 2W LONG, MAR. 23, 1964, 2100 G.C.T.
DRY BULB 22.3 WET BULB 19.4 WIND SPEED 16, DIR. 09 BAR. 21 WEATHER 01 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.82	35.12			24.10	382.8	0.	22.82	35.12	24.10	382.8	0.000
10.	22.83	35.12			24.09	383.4	10.	22.83	35.12	24.09	383.4	0.039
30.Δ	22.80	35.12			24.10	383.4	20.	22.82	35.12	24.10	383.6	0.078
50.Δ	22.76	35.13			24.12	382.3	30.	22.80	35.12	24.10	383.4	0.116
75.Δ	22.56	35.19			24.22	373.5	50.	22.76	35.13	24.12	382.3	0.193
102.	22.43	35.22			24.28	368.8	75.	22.56	35.19	24.22	373.5	0.289
125.	20.86	35.09			24.62	337.4	100.	22.47	35.22	24.27	369.7	0.382
151.	19.59	35.02			24.90	311.2	150.	19.63	35.02	24.89	312.0	0.554
177.	18.88	34.97			25.05	298.2	200.	17.67	34.81	25.23	281.5	0.704
193.	18.10	34.86			25.16	288.0	250.	14.48	34.46	25.69	238.5	0.835
224.	16.10	34.65			25.47	258.4	300.	12.36	34.26	25.97	212.1	0.948
251.	14.42	34.45			25.69	237.9	400.	9.02	34.09	26.42	169.3	1.141
280.	13.15	34.30			25.84	224.1	500.	6.56	34.06	26.76	136.9	1.295
304.	12.21	34.26			25.99	209.7	600.	5.37	34.17	27.00	114.1	1.422
405.	8.88	34.08			26.44	167.6	700.	4.78	34.29	27.16	99.3	1.530
506.	6.45	34.06			26.77	135.2	800.	4.45	34.38	27.27	89.2	1.625
606.	5.33	34.18			27.01	113.0	1000.	3.91	34.50	27.42	76.1	1.792
808.	4.44	34.39			27.28	88.6	1200.	3.42	34.56	27.51	67.4	1.938
1009.	3.89	34.50			27.42	75.6	1500.	2.83	34.60	27.60	59.1	2.130
1211.	3.40	34.56			27.52	67.0						
1510.	2.81	34.60			27.60	59.0						

CROMWELL 2, STATION 17, 23-32N LAT, 151- 4W LONG, MAR. 24, 1964, 1300 G.C.T.
DRY BULB 20.7 WET BULB 19.9 WIND SPEED 16, DIR. 09 BAR. 19 WEATHER 18 VIS. 9 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.42	35.14			24.23	370.4	0.	22.42	35.14	24.23	370.4	0.000
10.	22.45	35.17			24.24	369.5	10.	22.45	35.17	24.24	369.5	0.038
30.Δ	22.44	35.18			24.25	369.2	20.	22.45	35.18	24.25	369.2	0.075
50.Δ	22.40	35.18			24.26	368.9	30.	22.44	35.18	24.25	369.2	0.112
75.Δ	22.28	35.18			24.30	366.6	50.	22.40	35.18	24.26	368.9	0.187
99.	21.70	35.17			24.45	352.7	75.	22.28	35.18	24.30	366.6	0.279
123.	20.07	35.03			24.79	321.5	100.	21.64	35.16	24.46	351.4	0.370
147.	19.18	34.96			24.96	305.2	150.	19.04	34.95	24.99	303.0	0.534
173.	17.95	34.83			25.17	285.9	200.	16.64	34.68	25.38	267.2	0.678
187.	17.33	34.76			25.27	277.0	250.	13.41	34.32	25.81	226.7	0.803
220.	15.42	34.55			25.55	250.8	300.	11.71	34.17	26.02	206.7	0.912
247.	13.56	34.34			25.79	228.4	400.	8.70	34.06	26.45	166.4	1.100
273.	12.49	34.23			25.92	216.4	500.	6.75	34.04	26.72	140.3	1.255
297.	11.81	34.18			26.01	207.9	600.	5.75	34.15	26.93	120.8	1.387
395.	8.82	34.06			26.43	168.0	700.	4.93	34.25	27.11	103.5	1.500
495.	6.81	34.04			26.71	141.4	800.	4.33	34.36	27.26	89.5	1.598
594.	5.81	34.14			26.92	121.9	1000.	3.80	34.51	27.44	73.4	1.763
792.	4.36	34.35			27.25	90.4	1200.	3.34	34.58	27.54	64.6	1.902
991.	3.82	34.51			27.44	73.9						
1190.	3.36	34.56			27.52	66.3						
1492.	2.79	34.59			27.60	59.4						

CROMWELL 2, STATION 18, 22- 4N LAT, 150-57W LONG, MAR. 24, 1964, 2200 G.C.T.
DRY BULB 22.4 WET BULB 19.3 WIND SPEED 12, DIR. 13 BAR. 19 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.68	34.91			23.98	394.1	0.	22.68	34.91	23.98	394.1	0.000
10.	22.63	34.91			23.99	393.1	10.	22.63	34.91	23.99	393.1	0.040
101.	22.58	35.05			24.11	385.1	20.	22.61	34.92	24.01	392.0	0.080
124.	22.55	35.06			24.13	384.4	30.	22.59	34.94	24.02	390.9	0.119
150.	22.21	35.12			24.27	371.9	50.	22.57	34.97	24.05	389.0	0.198
174.	21.56	35.26			24.56	345.3	75.	22.56	35.01	24.08	386.9	0.295
190.	20.58	35.11			24.71	331.1	100.	22.58	35.05	24.11	385.2	0.393
222.	19.27	35.06			25.02	302.8	150.	22.21	35.12	24.27	371.9	0.583
254.	17.29	34.75			25.27	279.0	200.	20.16	35.09	24.81	322.2	0.758
282.	15.17	34.47			25.55	253.1	250.	17.57	34.80	25.24	282.0	0.911
306.	12.94	34.28			25.87	222.2	300.	13.49	34.32	25.79	229.7	1.040
407.	9.26	34.13			26.42	170.0	400.	9.35	34.12	26.40	171.9	1.242
510.	6.86	34.12			26.77	136.4	500.	7.03	34.11	26.74	139.2	1.399
611.	5.80	34.28			27.03	111.6	600.	5.88	34.26	27.01	114.0	1.527
814.	4.76	34.42			27.26	90.3	700.	5.23	34.36	27.16	99.6	1.635
1017.	4.05	34.52			27.42	76.2	800.	4.80	34.41	27.26	91.1	1.731
1219.	3.58	34.55			27.49	69.9	1000.	4.10	34.51	27.41	77.1	1.902
1401.	3.07	34.59			27.57	62.2	1200.	3.62	34.55	27.49	70.4	2.051

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 19, 20-28N LAT, 151- 0W LONG, MAR. 25, 1964, 0800 G.C.T.
DRY BULB 22.1 WET BULB 19.8 WIND SPEED 11, DIR. 12 BAR. 19 WEATHER 18 VIS. 9 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.19	34.51			23.53	436.9	0.	23.19	34.51	23.53	436.9	0.000
10.	23.18	34.51			23.53	437.0	10.	23.18	34.51	23.53	437.0	0.045
48.	22.61	34.94			24.02	391.8	20.	23.06	34.61	23.64	427.1	0.088
75.	22.40	35.05			24.16	379.2	30.	22.91	34.71	23.76	415.7	0.130
100.	22.30	35.11			24.24	373.1	50.	22.59	34.95	24.03	390.5	0.212
125.	21.36	35.19			24.56	343.3	75.	22.40	35.05	24.16	379.2	0.309
150.	20.03	35.11			24.86	315.7	100.	22.30	35.11	24.24	373.1	0.403
174.	18.81	35.01			25.10	293.5	150.	20.03	35.11	24.86	315.7	0.577
190.	17.95	34.89			25.22	282.2	200.	17.36	34.80	25.29	275.4	0.726
224.	15.80	34.57			25.48	257.7	250.	13.90	34.35	25.73	234.3	0.854
249.	13.97	34.36			25.72	235.2	300.	11.07	34.17	26.14	195.4	0.963
275.	12.29	34.22			25.95	213.4	400.	8.31	34.15	26.58	153.6	1.139
300.	11.07	34.17			26.14	195.4	500.	6.99	34.22	26.83	130.7	1.282
400.	8.31	34.15			26.58	153.6	600.	6.07	34.31	27.02	112.7	1.405
500.	6.99	34.22			26.83	130.7	700.	5.29	34.37	27.17	99.2	1.512
597.	6.10	34.31			27.02	113.2	800.	4.68	34.42	27.27	89.2	1.608
800.	4.68	34.42			27.27	89.2	1000.	4.09	34.51	27.41	77.2	1.776
999.	4.09	34.51			27.41	77.2	1200.	3.53	34.57	27.51	67.6	1.923
1199.	3.51	34.57			27.52	67.5	1500.	2.87	34.61	27.61	58.9	2.115
1503.	2.86	34.61			27.61	58.8						

CROMWELL 2, STATION 20, 19- 0N LAT, 151- 0W LONG, MAR. 25, 1964, 1800 G.C.T.
DRY BULB 22.5 WET BULB 19.7 WIND SPEED 07, DIR. 15 BAR. 16 WEATHER 03 VIS. 8 CLOUD TYPE 4, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.73	34.40			23.29	459.9	0.	23.73	34.40	23.29	459.9	0.000
10.	23.73	34.41			23.30	459.5	10.	23.73	34.41	23.30	459.5	0.047
30.Δ	23.73	34.41			23.30	460.3	20.	23.73	34.41	23.30	459.8	0.093
50.Δ	23.72	34.41			23.30	460.8	30.	23.73	34.41	23.30	460.3	0.139
75.Δ	23.71	34.41			23.30	461.5	50.	23.72	34.41	23.30	460.8	0.232
98.	23.71	34.41			23.30	462.3	75.	23.71	34.41	23.30	461.5	0.348
121.	22.80	34.49			23.63	432.2	100.	23.73	34.42	23.30	462.6	0.465
145.	17.28	34.50			25.09	293.4	150.	16.50	34.46	25.24	278.6	0.652
170.	14.17	34.30			25.63	241.5	200.	11.92	34.23	26.03	203.5	0.773
184.	12.98	34.25			25.84	222.0	250.	10.33	34.29	26.36	172.5	0.868
216.	11.16	34.25			26.18	189.2	300.	9.51	34.38	26.57	153.5	0.950
242.	10.57	34.31			26.33	175.2	400.	7.32	34.30	26.84	127.9	1.092
268.	9.88	34.27			26.42	167.1	500.	7.06	34.44	26.99	115.3	1.215
291.	9.76	34.38			26.53	157.5	600.	5.73	34.41	27.15	100.6	1.324
346.	8.02	34.30			26.74	137.2	700.	4.44	34.40	27.28	87.0	1.419
389.	7.47	34.31			26.83	129.1						
461.	6.84	34.32			26.93	120.6						
487.	6.93	34.41			26.98	115.6						
585.	6.09	34.43			27.11	104.0						
589.	5.92	34.42			27.13	102.6						
790.	4.93	34.51			27.32	85.6						

TEMPERATURE ERROR TERM AT 600. METERS IS 0.16
TEMPERATURE ERROR TERM AT 700. METERS IS 0.60

CROMWELL 2, STATION 21, 17-30N LAT, 151- 4W LONG, MAR. 26, 1964, 0300 G.C.T.
DRY BULB 22.2 WET BULB 20.4 WIND SPEED 14, DIR. 15 BAR. 13 WEATHER 02 VIS. 8 CLOUD TYPE 5, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.79	34.46			23.32	457.3	0.	23.79	34.46	23.32	457.2	0.000
11.Δ	23.63	34.45			23.36	453.9	10.	23.64	34.45	23.35	454.1	0.046
30.Δ	23.48	34.43			23.38	451.9	20.	23.54	34.44	23.37	452.5	0.092
50.Δ	23.42	34.42			23.39	451.7	30.	23.48	34.43	23.38	451.9	0.138
75.Δ	23.40	34.42			23.40	452.1	50.	23.42	34.42	23.39	451.7	0.229
99.	23.29	34.42			23.43	449.9	75.	23.40	34.42	23.40	452.1	0.342
124.	21.41	34.71			24.18	379.2	100.	23.23	34.43	23.46	447.6	0.456
158.	18.73	34.68			24.86	314.9	150.	19.54	34.73	24.70	330.7	0.652
173.	16.30	34.49			25.31	272.9	200.	14.02	34.35	25.70	235.6	0.795
188.	14.98	34.42			25.55	250.0	250.	10.89	34.19	26.18	190.0	0.902
220.	12.57	34.24			25.91	215.8	300.	9.20	34.13	26.43	167.0	0.992
246.	10.97	34.17			26.15	192.5	400.	6.65	34.14	26.81	130.4	1.142
272.	10.52	34.26			26.30	178.6	500.	6.41	34.37	27.02	111.7	1.264
296.	9.36	34.14			26.41	168.8	600.	5.85	34.43	27.15	100.7	1.371
395.	6.69	34.13			26.80	131.7	700.	5.28	34.48	27.25	91.5	1.469
493.	6.44	34.36			27.01	112.7	800.	4.78	34.50	27.33	84.2	1.557
590.	5.91	34.43			27.14	101.7	1000.	4.08	34.55	27.44	74.0	1.717
787.	4.83	34.50			27.32	85.0	1200.	3.49	34.58	27.52	66.6	1.860
984.	4.13	34.55			27.44	74.6						
1180.	3.55	34.57			27.51	67.8						
1477.	2.86	34.60			27.60	59.4						

TEMPERATURE ERROR TERM AT 150. METERS IS 0.11

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 2, STATION 22, 16- ON LAT, 150-59W LONG, MAR. 26, 1964, 1200 G.C.T.
DRY BULB 23.5 WET BULB 21.1 WIND SPEED 14, DIR. 13 BAR. 14 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.07	34.36			23.16	472.3	0.	24.07	34.36	23.16	472.3	0.000
10.	24.08	34.37			23.16	472.3	10.	24.08	34.37	23.16	472.3	0.048
48.	24.01	34.38			23.19	471.0	20.	24.08	34.38	23.17	472.3	0.096
75.Δ	23.82	34.38			23.25	466.7	30.	24.07	34.38	23.17	472.1	0.143
100.	21.49	34.67			24.13	383.3	50.	24.04	34.37	23.18	472.3	0.238
123.	19.28	34.84			24.85	315.6	75.	23.82	34.38	23.25	466.7	0.357
148.	18.12	34.80			25.11	291.3	100.	21.49	34.67	24.13	383.3	0.464
175.	15.73	34.53			25.47	257.6	150.	17.99	34.79	25.13	289.3	0.633
189.	13.93	34.35			25.72	233.5	200.	12.88	34.29	25.89	217.3	0.761
220.	11.53	34.28			26.14	193.7	250.	10.41	34.30	26.35	173.6	0.859
246.	10.50	34.29			26.33	175.5	300.	9.88	34.45	26.56	154.4	0.942
275.	10.07	34.36			26.46	163.7	400.	8.00	34.44	26.86	127.3	1.084
299.	9.90	34.45			26.56	154.8	500.	7.39	34.51	27.00	115.1	1.207
397.	8.02	34.44			26.85	127.7	600.	6.20	34.47	27.13	102.8	1.317
496.	7.44	34.51			26.99	115.7	700.	5.49	34.48	27.23	93.9	1.416
597.	6.23	34.47			27.13	103.1	800.	5.04	34.51	27.30	87.0	1.508
796.	5.06	34.51			27.30	87.3	1000.	4.34	34.56	27.42	76.6	1.673
995.	4.36	34.56			27.42	76.8	1200.	3.74	34.58	27.50	69.3	1.821
1193.	3.76	34.57			27.49	70.4						
1493.	3.01	34.61			27.59	60.6						

CROMWELL 2, STATION 23, 14-28N LAT, 151- 0W LONG, MAR. 26, 1964, 2100 G.C.T.
DRY BULB 24.3 WET BULB 21.8 WIND SPEED 13, DIR. 07 BAR. 15 WEATHER 01 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.08	34.47			23.24	464.7	0.	24.08	34.47	23.24	464.7	0.000
11.	23.97	34.47			23.27	462.0	10.	23.98	34.47	23.27	462.2	0.047
30.Δ	23.90	34.47			23.29	460.7	20.	23.93	34.47	23.28	461.2	0.094
50.Δ	23.84	34.48			23.32	459.1	30.	23.90	34.47	23.29	460.7	0.140
75.Δ	23.82	34.48			23.32	459.5	50.	23.84	34.48	23.32	459.1	0.233
100.	23.57	34.59			23.48	445.5	75.	23.82	34.48	23.32	459.5	0.348
124.	20.47	34.93			24.60	338.9	100.	23.57	34.59	23.48	445.5	0.462
149.	17.26	34.69			25.23	279.3	150.	17.17	34.67	25.26	277.2	0.645
174.	13.94	34.38			25.74	231.1	200.	11.94	34.42	26.17	190.2	0.762
190.	12.47	34.40			26.05	201.5	250.	11.15	34.62	26.47	162.4	0.851
222.	11.37	34.50			26.34	174.7	300.	10.41	34.64	26.62	149.6	0.930
249.	11.16	34.62			26.47	162.8	400.	9.02	34.59	26.81	132.3	1.072
275.	10.74	34.65			26.57	153.8	500.	8.19	34.57	26.93	122.6	1.201
299.	10.43	34.64			26.62	149.8	600.	7.21	34.54	27.05	111.8	1.319
398.	9.04	34.59			26.81	132.5	700.	6.41	34.53	27.15	102.6	1.427
498.	8.21	34.57			26.93	122.8	800.	5.75	34.53	27.23	94.9	1.527
598.	7.23	34.54			27.05	112.0	1000.	4.75	34.54	27.36	83.3	1.708
793.	5.79	34.53			27.23	95.3	1200.	4.06	34.57	27.46	74.3	1.867
998.	4.76	34.54			27.36	83.4						
1198.	4.14	34.58			27.46	74.5						
1497.	3.29	34.60			27.56	64.8						

CROMWELL 2, STATION 24, 12-59N LAT, 151- 1W LONG, MAR. 27, 1964, 0500 G.C.T.
DRY BULB 24.3 WET BULB 22.2 WIND SPEED 15, DIR. 07 BAR. 14 WEATHER 01 VIS. 9 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.64	34.38			23.00	487.1	0.	24.64	34.38	23.00	487.1	0.000
10.	24.63	34.37			23.00	487.9	10.	24.63	34.37	23.00	487.9	0.050
30.Δ	24.58	34.36			23.01	488.0	20.	24.66	34.36	22.99	489.6	0.099
48.	23.84	34.36			23.23	467.7	30.	24.58	34.36	23.01	488.0	0.148
75.	23.64	34.36			23.28	463.1	50.	23.86	34.35	23.21	469.3	0.245
99.	20.76	34.99			24.57	341.1	75.	23.64	34.36	23.28	463.1	0.362
123.	17.88	34.69			25.08	292.8	100.	20.64	34.99	24.60	338.3	0.463
148.	15.22	34.46			25.53	251.0	150.	14.96	34.44	25.57	247.0	0.610
174.	12.33	34.36			26.05	201.4	200.	11.41	34.60	26.41	167.3	0.715
190.	11.56	34.54			26.33	174.5	250.	10.81	34.68	26.58	152.2	0.795
221.	11.32	34.67			26.48	161.3	300.	10.35	34.68	26.66	145.5	0.870
247.	10.85	34.68			26.57	152.9	400.	9.10	34.62	26.82	131.3	1.010
274.	10.57	34.69			26.63	147.9	500.	8.15	34.58	26.94	121.2	1.137
299.	10.36	34.68			26.66	145.6	600.	7.00	34.53	27.07	109.5	1.254
399.	9.11	34.62			26.82	131.4	700.	6.14	34.52	27.18	99.6	1.360
500.	8.15	34.58			26.94	121.2	800.	5.49	34.53	27.27	91.4	1.456
598.	7.02	34.53			27.07	109.7	1000.	4.56	34.54	27.38	80.8	1.630
796.	5.51	34.53			27.26	91.6	1200.	3.87	34.56	27.48	72.2	1.785
996.	4.57	34.54			27.38	81.0						
1195.	3.93	34.57			27.47	72.6						
1496.	3.09	34.60			27.58	62.3						

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 2, STATION 25, 11-30N LAT, 151- 0W LONG, MAR. 27, 1964, 1400 G.C.T.
DRY BULB 25.3 WET BULB 22.7 WIND SPEED 18, DIR. 08 BAR. 12 WEATHER 03 VIS. 8 CLOUD TYPE 6, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.90	34.71			22.87	500.1	0.	25.90	34.71	22.87	500.1	0.000
10.	25.91	34.71			22.86	500.8	10.	25.91	34.71	22.86	500.8	0.051
30.Δ	25.92	34.70			22.85	502.6	20.	25.92	34.70	22.86	501.8	0.101
50.	25.92	34.71			22.86	502.7	30.	25.92	34.70	22.85	502.6	0.152
75.Δ	24.40	34.75			23.35	456.5	50.	25.92	34.71	22.86	502.7	0.253
101.	15.80	34.42			25.37	264.9	75.	24.40	34.75	23.35	456.5	0.374
125.	12.62	34.31			25.95	209.2	100.	16.15	34.43	25.30	271.4	0.466
150.	11.95	34.75			26.42	165.1	150.	11.95	34.75	26.42	165.1	0.576
176.	11.57	34.76			26.50	158.1	200.	11.09	34.76	26.59	150.4	0.655
191.	11.23	34.76			26.57	152.4	250.	10.56	34.75	26.68	142.8	0.729
223.	10.83	34.75			26.63	146.9	300.	10.03	34.72	26.75	137.1	0.800
250.	10.56	34.75			26.68	142.8	400.	9.29	34.66	26.83	131.3	0.935
276.	10.28	34.73			26.71	140.1	500.	8.49	34.64	26.94	122.0	1.063
300.	10.03	34.72			26.75	137.1	600.	7.54	34.59	27.04	112.9	1.182
401.	9.28	34.66			26.83	131.3	700.	6.67	34.57	27.14	103.5	1.291
501.	8.48	34.64			26.94	121.9	800.	5.91	34.56	27.24	94.9	1.391
601.	7.53	34.59			27.04	112.8	1000.	4.82	34.55	27.36	83.5	1.572
799.	5.92	34.56			27.24	95.0	1200.	4.05	34.57	27.46	74.1	1.731
998.	4.83	34.55			27.36	83.6						
1198.	4.11	34.58			27.46	74.1						
1497.	3.28	34.61			27.57	63.9						

CROMWELL 2, STATION 26, 10- 3N LAT, 147-58W LONG, MAR. 29, 1964, 0000 G.C.T.
DRY BULB 26.4 WET BULB 23.6 WIND SPEED 15, DIR. 11 BAR. 11 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.69	34.83			22.71	515.1	0.	26.69	34.83	22.71	515.1	0.000
11.	26.67	34.84			22.72	514.3	10.	26.67	34.84	22.72	514.4	0.052
30.Δ	26.58	34.85			22.76	511.6	20.	26.63	34.85	22.74	513.1	0.104
50.Δ	26.44	34.85			22.80	508.2	30.	26.58	34.85	22.76	511.6	0.156
75.Δ	26.20	34.85			22.88	502.0	50.	26.44	34.85	22.80	508.2	0.258
102.	13.98	34.41			25.75	227.7	75.	26.20	34.85	22.88	502.0	0.386
124.	12.80	34.60			26.14	191.4	100.	14.89	34.44	25.58	244.3	0.480
136.	12.04	34.70			26.37	170.1	150.	11.75	34.76	26.47	161.0	0.582
146.	11.84	34.75			26.44	163.0	200.	10.99	34.76	26.61	148.7	0.660
152.	11.71	34.76			26.48	160.1	250.	10.29	34.72	26.70	140.3	0.733
178.	11.25	34.76			26.56	152.5	300.	9.87	34.70	26.76	135.8	0.802
194.	11.08	34.76			26.59	149.8	400.	9.25	34.67	26.84	129.9	0.936
226.	10.57	34.73			26.66	143.9	500.	8.38	34.61	26.93	122.2	1.064
253.	10.26	34.72			26.71	140.0	600.	7.34	34.57	27.05	111.3	1.182
281.	10.06	34.71			26.73	138.0	700.	6.47	34.55	27.16	101.7	1.289
304.	9.83	34.70			26.77	135.3	800.	5.75	34.55	27.25	93.5	1.388
406.	9.22	34.67			26.84	129.6	1000.	4.68	34.56	27.38	81.0	1.564
508.	8.30	34.61			26.94	121.4	1200.	3.89	34.59	27.49	70.9	1.718
608.	7.26	34.57			27.06	110.4	1500.	3.18	34.61	27.58	62.8	1.922
810.	5.69	34.55			27.26	92.7						
1013.	4.62	34.56			27.39	80.3						
1214.	3.85	34.59			27.50	70.3						
1517.	3.16	34.61			27.58	62.6						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.28

CROMWELL 2, STATION 27, 11-30N LAT, 147-58W LONG, MAR. 29, 1964, 1100 G.C.T.
DRY BULB 25.3 WET BULB 21.9 WIND SPEED 20, DIR. 07 BAR. 13 WEATHER 03 VIS. 9 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.01	34.72			22.84	502.6	0.	26.01	34.72	22.84	502.6	0.000
11.Δ	26.03	34.72			22.83	503.7	10.	26.03	34.72	22.83	503.6	0.051
30.Δ	26.04	34.72			22.83	504.7	20.	26.04	34.72	22.83	504.2	0.102
49.	26.05	34.72			22.83	505.8	30.	26.04	34.72	22.83	504.7	0.153
75.Δ	24.80	34.77			23.25	466.5	50.	26.06	34.72	22.83	506.0	0.255
100.	19.20	34.81			24.84	315.0	75.	24.80	34.77	23.25	466.5	0.377
123.	15.25	34.44			25.50	252.3	100.	19.20	34.81	24.84	315.0	0.476
149.	12.47	34.66			26.25	181.4	150.	12.39	34.66	26.27	180.1	0.600
173.	11.31	34.63			26.45	163.0	200.	11.13	34.73	26.56	153.0	0.684
187.	11.28	34.71			26.52	156.9	250.	10.28	34.71	26.70	141.1	0.758
221.	10.77	34.72			26.62	148.0	300.	9.92	34.70	26.75	136.9	0.828
247.	10.31	34.71			26.69	141.4	400.	9.01	34.64	26.85	128.5	0.962
273.	10.10	34.70			26.72	139.2	500.	7.97	34.59	26.98	117.8	1.087
298.	9.94	34.70			26.75	137.0	600.	6.99	34.56	27.09	107.2	1.200
396.	9.05	34.64			26.85	128.9	700.	6.16	34.54	27.19	98.6	1.304
496.	8.01	34.59			26.97	118.3	800.	5.49	34.53	27.27	91.4	1.400
594.	7.04	34.56			27.09	107.8	1000.	4.55	34.56	27.40	79.3	1.573
792.	5.54	34.53			27.26	92.0	1200.	3.83	34.58	27.49	70.6	1.725
989.	4.60	34.56			27.39	79.8						
1187.	3.88	34.57			27.48	71.9						
1483.	3.11	34.62			27.59	61.0						

ΔFROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 28, 13- 3N LAT, 147-58W LONG, MAR. 29, 1964, 2000 G.C.T.
DRY BULB 25.5 WET BULB 21.8 WIND SPEED 18, DIR. 07 BAR. 15 WEATHER 03 VIS. 9 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.53	34.35**			23.01	486.1	0.	24.53	34.35	23.01	486.1	0.000
10.Δ	24.54	34.35**			23.01	486.8	10.	24.54	34.35	23.01	486.8	0.049
30.Δ	24.46	34.34			23.03	486.0	20.	24.52	34.35	23.01	486.8	0.099
50.Δ	24.25	34.33			23.08	481.5	30.	24.46	34.34	23.03	486.0	0.148
75.Δ	23.36	34.46			23.44	448.1	50.	24.25	34.33	23.08	481.5	0.245
100.	19.80	34.72			24.62	336.3	75.	23.36	34.46	23.44	448.1	0.362
124.	17.31	34.64			25.18	283.3	100.	19.80	34.72	24.62	336.3	0.461
149.	14.12	34.37			25.69	234.8	150.	14.02	34.37	25.71	233.0	0.604
171.	12.35	34.36			26.04	201.7	200.	10.75	34.33	26.32	176.0	0.707
190.	11.19	34.32			26.23	184.0	250.	9.91	34.45	26.56	154.0	0.791
220.	10.16	34.37			26.45	163.3	300.	9.63	34.56	26.69	142.2	0.865
248.	9.90	34.44			26.55	154.5	400.	8.62	34.56	26.85	128.1	1.002
276.	9.94	34.54			26.62	148.3	500.	7.73	34.56	26.99	116.4	1.125
299.	9.64	34.56			26.69	142.4	600.	6.73	34.53	27.11	105.7	1.237
397.	8.65	34.56			26.85	128.5	700.	5.93	34.52	27.21	96.5	1.339
496.	7.77	34.56			26.98	116.9	800.	5.30	34.53	27.29	88.9	1.433
594.	6.78	34.53			27.10	106.3	1000.	4.39	34.55	27.41	77.8	1.602
790.	5.36	34.53			27.28	89.6	1200.	3.70	34.58	27.50	69.2	1.751
985.	4.45	34.55			27.40	78.6						
1181.	3.78	34.58			27.50	69.9						
1480.	3.04	34.61			27.59	60.9						

CROMWELL 2, STATION 29, 14-30N LAT, 147-58W LONG, MAR. 30, 1964, 0500 G.C.T.
DRY BULB 23.5 WET BULB 20.5 WIND SPEED 20, DIR. 08 BAR. 15 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.31	34.32			23.06	482.0	0.	24.31	34.32	23.06	482.0	0.000
9.Δ	24.33	34.32			23.05	482.9	10.	24.33	34.32	23.05	483.0	0.049
30.Δ	24.32	34.31			23.05	484.2	20.	24.33	34.31	23.05	483.7	0.098
48.Δ	24.31	34.31			23.05	484.6	30.	24.32	34.31	23.05	484.2	0.147
75.Δ	24.08	34.31			23.12	479.1	50.	24.30	34.31	23.05	484.5	0.244
98.	23.58	34.34			23.29	463.7	75.	24.08	34.31	23.12	479.1	0.365
122.	18.00	34.45			24.87	313.0	100.	23.19	34.35	23.41	452.0	0.483
146.	13.67	34.27			25.71	233.0	150.	13.33	34.27	25.78	226.1	0.654
172.	12.28	34.35			26.05	201.1	200.	11.22	34.41	26.30	178.0	0.755
187.	11.71	34.39			26.19	188.1	250.	9.91	34.49	26.59	150.9	0.838
219.	10.59	34.44			26.43	165.4	300.	9.30	34.52	26.71	139.8	0.912
245.	9.98	34.49			26.58	152.0	400.	7.85	34.48	26.91	122.4	1.044
271.	9.66	34.49			26.63	147.3	500.	6.84	34.47	27.04	110.2	1.161
296.	9.36	34.52			26.70	140.7	600.	5.99	34.47	27.16	99.9	1.268
394.	7.92	34.48			26.90	123.2	700.	5.35	34.49	27.25	91.5	1.364
493.	6.91	34.47			27.03	111.0	800.	4.85	34.51	27.33	84.5	1.453
592.	6.05	34.47			27.15	100.6	1000.	4.05	34.55	27.45	73.7	1.613
790.	4.90	34.51			27.32	85.2	1200.	3.50	34.58	27.52	66.8	1.756
988.	4.09	34.55			27.44	74.2						
1185.	3.58	34.57			27.51	68.2						
1429.	3.02	34.60			27.59	61.0						

CROMWELL 2, STATION 30, 15-57N LAT, 148- 5W LONG, MAR. 30, 1964, 1400 G.C.T.
DRY BULB 22.3 WET BULB 19.0 WIND SPEED 21, DIR. 08 BAR. 15 WEATHER 03 VIS. 8 CLOUD TYPE 6, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.84	34.33			23.20	468.0	0.	23.84	34.33	23.20	468.0	0.000
10.	23.83	34.33			23.21	468.1	10.	23.83	34.33	23.21	468.1	0.048
48.	23.49	34.45			23.40	451.4	20.	23.80	34.32	23.21	468.2	0.095
77.	22.78	34.97			23.99	395.4	30.	23.72	34.34	23.25	465.0	0.142
104.	22.64	34.98			24.04	391.9	50.	23.44	34.49	23.44	447.3	0.234
124.	20.13	34.92			24.69	331.0	75.	22.83	34.94	23.96	399.0	0.340
150.	18.87	34.96			25.04	297.8	100.	22.76	35.00	24.02	393.9	0.440
177.	15.53	34.44			25.44	259.9	150.	18.87	34.96	25.04	297.8	0.614
194.	13.54	34.25			25.72	233.2	200.	13.01	34.25	25.83	222.8	0.746
223.	11.62	34.38			26.20	188.1	250.	11.07	34.52	26.41	168.6	0.844
250.	11.07	34.52			26.41	168.6	300.	10.35	34.56	26.57	154.2	0.926
279.	10.69	34.56			26.51	159.7	400.	9.14	34.55	26.76	137.0	1.073
304.	10.28	34.56			26.58	153.2	500.	7.98	34.52	26.92	122.9	1.204
405.	9.09	34.55			26.77	136.4	600.	6.78	34.49	27.07	109.2	1.321
507.	7.90	34.52			26.93	121.9	700.	5.97	34.49	27.17	99.8	1.427
606.	6.71	34.49			27.08	108.4	800.	5.42	34.50	27.25	92.8	1.524
809.	5.38	34.50			27.26	92.3	1000.	4.58	34.54	27.38	81.3	1.700
1009.	4.55	34.54			27.38	80.8	1200.	3.87	34.56	27.47	72.4	1.856
1185.	3.91	34.56			27.47	73.0						
1397.	3.30	34.57			27.54	66.4						

ΔFROM BT DATA
**EXTRAPOLATED VALUE

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 31, 17-30N LAT, 147-58W LONG, MAR. 31, 1964, 0200 G.C.T.
DRY BULB 23.4 WET BULB 19.1 WIND SPEED 25, DIR. 08 BAR. 17 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.29	34.45			23.45	444.0	0.	23.29	34.45	23.45	444.0	0.000
8.	23.30	34.45			23.45	444.6	10.	23.30	34.45	23.45	444.8	0.045
46.Δ	23.26	34.44			23.46	445.7	20.	23.30	34.45	23.45	445.3	0.090
75.Δ	23.20	34.46			23.49	443.7	30.	23.29	34.44	23.45	445.7	0.135
99.	23.02	34.47			23.55	438.9	50.	23.26	34.44	23.46	445.6	0.225
124.	20.58	34.74			24.43	355.5	75.	23.20	34.46	23.49	443.7	0.337
149.	19.07	34.85			24.91	310.6	100.	22.94	34.48	23.58	435.9	0.448
173.	17.32	34.71			25.23	280.0	150.	19.01	34.85	24.92	309.2	0.635
189.	15.61	34.48			25.45	259.0	200.	14.45	34.36	25.62	243.4	0.775
222.	12.32	34.22			25.94	212.6	250.	10.25	34.17	26.28	180.1	0.881
247.	10.37	34.18			26.27	181.4	300.	10.12	34.43	26.50	160.3	0.967
273.	9.84	34.17			26.35	173.9	400.	9.07	34.52	26.75	138.2	1.118
297.	10.12	34.41			26.49	161.4	500.	7.50	34.47	26.95	119.9	1.248
397.	9.12	34.52			26.74	138.9	600.	6.58	34.46	27.07	108.6	1.363
486.	7.67	34.47			26.93	121.8	700.	5.92	34.48	27.17	99.5	1.469
594.	6.62	34.46			27.07	109.2	800.	5.42	34.51	27.26	91.9	1.565
791.	5.47	34.51			27.25	92.5	1000.	4.51	34.54	27.39	80.1	1.739
990.	4.55	34.54			27.38	80.6	1200.	3.83	34.58	27.49	70.9	1.892
1190.	3.89	34.58			27.49	71.3						
1429.	3.22	34.60			27.57	63.4						

CROMWELL 2, STATION 32, 19- 3N LAT, 147-57W LONG, MAR. 31, 1964, 1200 G.C.T.
DRY BULB 20.9 WET BULB 17.1 WIND SPEED 26, DIR. 07 BAR. 21 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.70	34.79			23.88	403.3	0.	22.70	34.79	23.88	403.3	0.000
9.	22.72	34.80			23.88	403.5	10.	22.72	34.80	23.88	403.6	0.041
47.	22.72	34.79			23.88	405.6	20.	22.73	34.79	23.88	404.6	0.082
99.	22.58	34.98			24.06	390.1	30.	22.73	34.79	23.87	405.2	0.123
120.	22.51	35.06			24.14	383.2	50.	22.71	34.80	23.88	405.1	0.204
144.	21.60	35.14			24.46	353.9	75.	22.66	34.88	23.96	398.7	0.305
171.	20.06	35.08			24.83	319.3	100.	22.58	34.98	24.06	390.0	0.405
185.	19.40	35.02			24.95	307.6	150.	21.27	35.14	24.54	345.6	0.590
216.	17.68	34.81			25.22	282.5	200.	18.71	34.95	25.07	296.5	0.752
240.	15.04	34.41			25.53	253.5	250.	14.28	34.31	25.62	244.9	0.888
268.	13.10	34.22			25.79	228.7	300.	11.07	34.23	26.18	191.3	0.998
292.	11.42	34.22			26.11	197.8	400.	8.81	34.32	26.64	148.7	1.170
390.	9.01	34.32			26.60	151.7	500.	7.22	34.32	26.88	126.3	1.309
488.	7.38	34.32			26.85	128.7	600.	6.18	34.37	27.05	110.0	1.428
585.	6.29	34.36			27.03	111.9	700.	5.56	34.41	27.17	99.7	1.534
780.	5.24	34.45			27.23	93.8	800.	5.15	34.46	27.25	92.5	1.631
976.	4.48	34.50			27.36	82.6	1000.	4.39	34.50	27.37	81.4	1.807
1171.	3.80	34.53			27.45	73.7	1200.	3.73	34.54	27.47	72.3	1.963
1468.	3.04	34.58			27.57	63.0						

CROMWELL 2, STATION 33, 20-26N LAT, 147-56W LONG, MAR. 31, 1964, 2000 G.C.T.
DRY BULB 21.8 WET BULB 17.5 WIND SPEED 20, DIR. 07 BAR. 23 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	22.19	35.08			24.25	368.6	0.	22.19	35.08	24.25	368.6	0.000
10.	22.20	35.09			24.25	368.5	10.	22.20	35.09	24.25	368.5	0.038
97.	22.18	35.10			24.26	370.5	20.	22.21	35.09	24.25	369.3	0.075
121.	22.10	35.14			24.32	366.4	30.	22.22	35.09	24.24	369.9	0.112
146.	21.78	35.15			24.41	358.0	50.	22.23	35.09	24.24	370.8	0.187
171.	20.10	35.08			24.82	320.4	75.	22.21	35.09	24.25	371.0	0.280
185.	19.79	35.11			24.92	310.9	100.	22.18	35.11	24.27	370.2	0.373
217.	18.04	34.84			25.16	288.8	150.	21.51	35.14	24.48	352.0	0.555
243.	15.74	34.52			25.46	260.6	200.	19.13	35.02	25.02	301.5	0.720
268.	13.86	34.29			25.69	238.6	250.	15.18	34.45	25.52	254.1	0.860
292.	12.29	34.14			25.89	219.7	300.	11.91	34.12	25.95	214.0	0.978
389.	9.10	34.17			26.47	164.2	400.	8.80	34.17	26.52	160.0	1.167
487.	6.92	34.14			26.77	135.4	500.	6.74	34.14	26.80	132.8	1.315
584.	5.89	34.20			26.96	118.4	600.	5.78	34.22	26.98	116.0	1.440
779.	4.96	34.40			27.23	93.9	700.	5.24	34.32	27.13	102.6	1.551
975.	4.18	34.50			27.39	78.8	800.	4.87	34.41	27.25	91.9	1.649
1170.	3.68	34.54			27.47	71.5	1000.	4.11	34.51	27.40	77.7	1.821
1468.	2.93	34.58			27.58	61.6	1200.	3.54	34.56	27.50	68.9	1.969

ΔFROM BT DATA

Table 2.--Continued

CROMWELL 2, STATION 34, 22- ON LAT, 147-58W LONG, APR. 1, 1964, 0600 G.C.T.
DRY BULB 20.8 WET BULB 17.8 WIND SPEED 22, DIR. 07 BAR. 23 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 5

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.55	34.92			24.02	389.8	0.	22.55	34.92	24.02	389.8	0.000
9.	22.55	34.93			24.03	389.5	10.	22.55	34.93	24.03	389.3	0.040
30.Δ	22.55	34.98			24.07	386.7	20.	22.55	34.96	24.05	388.0	0.079
50.Δ	22.54	35.00			24.09	385.7	30.	22.55	34.98	24.07	386.7	0.118
75.Δ	22.53	35.04			24.12	383.5	50.	22.54	35.00	24.09	385.7	0.196
94.	22.53	35.08			24.15	381.3	75.	22.53	35.04	24.12	383.5	0.293
116.	21.85	35.11			24.36	361.7	100.	22.40	35.09	24.19	377.4	0.388
140.	20.63	35.13			24.71	329.2	150.	20.38	35.13	24.78	323.4	0.565
168.	19.86	35.08			24.88	314.2	200.	18.27	34.89	25.14	289.9	0.720
181.	19.12	35.00			25.01	302.0	250.	15.43	34.51	25.51	255.1	0.857
211.	17.75	34.82			25.21	283.2	300.	12.62	34.26	25.92	217.2	0.976
234.	16.22	34.61			25.42	264.3	400.	8.59	34.21	26.58	153.6	1.163
262.	14.87	34.44			25.59	248.3	500.	7.86	34.36	26.82	132.7	1.308
286.	13.47	34.31			25.78	229.8	600.	6.73	34.39	27.00	115.8	1.433
380.	8.90	34.18			26.51	160.1	700.	5.86	34.44	27.15	102.1	1.543
477.	8.12	34.35			26.77	137.3	800.	5.19	34.47	27.25	92.1	1.641
571.	7.02	34.38			26.95	120.4	1000.	4.25	34.50	27.39	79.8	1.815
760.	5.44	34.46			27.22	95.5	1200.	3.58	34.54	27.49	70.3	1.967
951.	4.44	34.49			27.36	82.6						
1142.	3.80	34.54			27.46	72.7						
1429.	3.09	34.58			27.56	63.3						

TEMPERATURE ERROR TERM AT 400. METERS IS 0.12

CROMWELL 2, STATION 35, 23-30N LAT, 147-59W LONG, APR. 1, 1964, 1500 G.C.T.
DRY BULB 20.8 WET BULB 16.4 WIND SPEED 20, DIR. 09 BAR. 24 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.00	35.16			24.36	357.7	0.	22.00	35.16	24.36	357.7	0.000
8.	22.02	35.17			24.36	357.8	10.	22.02	35.17	24.36	357.9	0.036
47.	22.03	35.16			24.35	360.3	20.	22.03	35.17	24.36	358.5	0.072
75.Δ	22.03	35.17			24.36	360.6	30.	22.04	35.17	24.36	359.2	0.108
95.	21.43	35.29			24.62	336.8	50.	22.05	35.16	24.34	361.3	0.181
117.	21.29	35.30			24.66	333.2	75.	22.03	35.17	24.36	360.6	0.272
143.	21.06	35.29 *			24.72	328.9	100.	21.38	35.30	24.64	334.9	0.359
168.	20.48	35.32			24.90	312.6	150.	20.95	35.30	24.76	325.2	0.526
185.*	19.68	35.25			25.06	298.0	200.	18.77	35.17	25.23	281.7	0.679
213.	17.99	35.10			25.37	268.7	250.	16.64	34.91	25.55	252.6	0.813
251.*	16.60	34.90			25.55	252.3	300.	10.17	34.06	26.21	187.8	0.924
264.	15.70	34.76			25.65	242.9	400.	7.73	34.03	26.57	153.7	1.097
272.*	14.26	34.48			25.75	233.0	500.	6.00	34.05	26.83	129.5	1.240
297.	10.39	34.08			26.19	190.2	600.	4.95	34.15	27.03	110.7	1.361
372.	8.36	34.04			26.49	161.9	700.	4.48	34.28	27.18	96.4	1.466
446.	6.84	34.03			26.70	141.9	800.	4.28	34.40	27.30	86.1	1.558
595.	4.98	34.14			27.02	111.5	1000.	3.88	34.52	27.44	73.8	1.720
747.	4.39	34.34			27.24	91.1	1200.	3.44	34.54	27.50	68.8	1.864
900.	4.12	34.48			27.38	78.9						
1131.	3.57	34.54			27.49	69.9						
1200.**	3.44**	34.54**			27.50	68.8						

CROMWELL 2, STATION 36, 25- ON LAT, 148- OW LONG, APR. 2, 1964, 0100 G.C.T.
DRY BULB 20.2 WET BULB 17.8 WIND SPEED 21, DIR. 07 BAR. 25 WEATHER 02 VIS. 8 CLOUD TYPE 6, COVER 7

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	21.91	35.07			24.32	361.8	0.	21.91	35.07	24.32	361.8	0.000
10.	21.91	35.07			24.32	362.2	10.	21.91	35.07	24.32	362.2	0.037
49.	21.70	35.16			24.44	351.6	20.	21.87	35.09	24.34	360.4	0.073
102.	21.42	35.27			24.60	338.2	30.	21.82	35.11	24.37	357.9	0.110
125.	21.17	35.31			24.70	329.6	50.	21.70	35.16	24.45	351.4	0.181
150.	19.73	35.12			24.94	307.4	75.	21.59	35.22	24.52	345.5	0.269
175.	18.28	34.92			25.16	287.3	100.	21.43	35.27	24.60	338.8	0.355
191.	17.66	34.82			25.24	280.5	150.	19.73	35.12	24.94	307.4	0.518
223.	15.17	34.46			25.54	252.1	200.	17.02	34.72	25.32	273.0	0.664
251.	13.33	34.24			25.76	231.3	250.	13.39	34.25	25.75	232.0	0.791
278.	11.65	34.10			25.98	210.4	300.	10.85	34.09	26.11	197.5	0.900
301.	10.82	34.09			26.12	196.9	400.	8.62	34.04	26.45	166.4	1.083
401.	8.60	34.04			26.45	166.1	500.	6.10	34.06	26.82	130.6	1.233
502.	6.06	34.06			26.82	129.9	600.	5.31	34.14	26.98	115.8	1.358
603.	5.30	34.14			26.98	115.5	700.	4.76	34.25	27.13	101.9	1.468
803.	4.34	34.36			27.26	89.5	800.	4.35	34.36	27.26	89.9	1.564
1003.	3.86	34.49			27.42	76.0	1000.	3.87	34.49	27.42	76.1	1.732
1204.	3.48	34.54			27.49	69.3	1200.	3.49	34.54	27.49	69.4	1.880
1505.	2.84	34.58			27.59	60.8	1500.	2.85	34.58	27.59	60.9	2.078

ΔFROM BT DATA
*INTERPOLATED VALUE
**EXTRAPOLATED VALUE

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 37, 26-30N LAT, 148- OW LONG, APR. 2, 1964, 1000 G.C.T.
DRY BULB 20.2 WET BULB 16.8 WIND SPEED 19, DIR. 10 BAR. 27 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	21.10	35.33			24.74	321.8	0.	21.10	35.33	24.74	321.7	0.000
10.	21.10	35.32			24.73	322.8	10.	21.10	35.32	24.73	322.8	0.033
98.	21.13	35.34			24.74	325.4	20.	21.10	35.32	24.73	323.2	0.065
121.	21.12	35.32			24.72	327.4	30.	21.11	35.32	24.73	323.6	0.098
141.	20.85	35.28			24.77	324.0	50.	21.12	35.33	24.73	324.3	0.163
170.	20.47	35.29			24.88	314.6	75.	21.12	35.33	24.73	324.9	0.245
185.	19.55	35.10			24.97	305.6	100.	21.14	35.34	24.73	325.7	0.327
218.	17.60	34.81			25.24	280.7	150.	20.83	35.31	24.79	322.0	0.490
243.	16.03	34.62			25.47	259.6	200.	18.67	34.95	25.09	294.9	0.646
268.	14.55	34.44			25.66	241.8	250.	15.61	34.57	25.52	254.5	0.784
292.	13.14	34.29			25.83	225.0	300.	12.80	34.26	25.88	220.4	0.904
389.	10.10	34.16			26.30	181.3	400.	9.78	34.14	26.34	177.5	1.105
487.	7.59	34.03			26.59	153.1	500.	7.34	34.02	26.62	150.3	1.270
583.	6.08	34.02			26.79	134.2	600.	5.89	34.04	26.83	130.6	1.412
768.	4.60	34.27			27.16	99.0	700.	4.99	34.16	27.03	111.1	1.534
970.	3.91	34.46			27.39	78.5	800.	4.45	34.31	27.21	94.8	1.638
1164.	3.47	34.53			27.49	69.7	1000.	3.83	34.48	27.41	76.7	1.812
1455.	2.92	34.58			27.58	61.4	1200.	3.36	34.56	27.52	66.6	1.957

CROMWELL 2, STATION 38, 25- 4N LAT, 150-57W LONG, APR. 3, 1964, 0400 G.C.T.
DRY BULB 22.0 WET BULB 19.0 WIND SPEED 12, DIR. 13 BAR. 23 WEATHER 01 VIS. 9 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.25	35.21			24.33	360.8	0.	22.25	35.21	24.33	360.8	0.000
10.	22.28	35.21			24.32	362.0	10.	22.28	35.21	24.32	362.0	0.037
30.Δ	22.27	35.22			24.33	361.8	20.	22.31	35.21	24.31	363.0	0.073
50.	21.78	35.25			24.49	347.2	30.	22.27	35.22	24.33	361.8	0.110
75.Δ	21.46	35.25			24.58	339.7	50.	21.78	35.25	24.49	347.2	0.181
103.	20.80	35.26			24.77	322.8	75.	21.46	35.25	24.58	339.7	0.268
126.	20.66	35.32			24.85	315.7	100.	20.87	35.26	24.75	324.6	0.352
153.	19.79	35.16			24.96	306.1	150.	19.93	35.19	24.94	307.6	0.511
179.	18.00	34.88			25.20	283.7	200.	16.41	34.65	25.40	264.8	0.655
194.	16.78	34.70			25.35	269.0	250.	13.58	34.32	25.77	230.4	0.780
227.	14.96	34.46			25.58	247.8	300.	11.62	34.18	26.04	204.8	0.890
254.	13.36	34.30			25.80	227.6	400.	8.83	34.09	26.46	165.9	1.077
283.	12.27	34.24			25.97	211.7	500.	6.53	34.08	26.78	134.7	1.228
307.	11.36	34.15			26.07	202.2	600.	5.34	34.13	26.97	116.8	1.355
409.	8.64	34.10			26.49	162.5	700.	4.67	34.22	27.12	102.6	1.466
511.	6.32	34.08			26.81	132.0	800.	4.22	34.32	27.25	90.7	1.564
612.	5.26	34.14			26.99	115.1	1000.	3.71	34.49	27.43	74.2	1.731
815.	4.17	34.34			27.27	89.1	1200.	3.29	34.54	27.51	67.2	1.874
1018.	3.68	34.50			27.44	73.2	1500.	2.77	34.58	27.59	59.8	2.067
1221.	3.25	34.54			27.52	66.7						
1523.	2.74	34.58			27.60	59.7						

CROMWELL 2, STATION 39, 24-59N LAT, 154- 1W LONG, APR. 3, 1964, 2000 G.C.T.
DRY BULB 23.0 WET BULB 19.8 WIND SPEED 16, DIR. 15 BAR. 23 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	22.52	35.21			24.25	368.1	0.	22.52	35.21	24.25	368.1	0.000
11.	22.56	35.20			24.23	370.3	10.	22.56	35.20	24.23	370.2	0.038
50.	22.43	35.20			24.27	368.3	20.	22.57	35.19	24.22	371.3	0.075
76.	22.11	35.24			24.39	357.8	30.	22.55	35.19	24.23	371.3	0.112
101.	21.40	35.17			24.53	344.9	50.	22.43	35.20	24.27	368.3	0.187
126.	20.46	35.12			24.75	325.0	75.	22.13	35.24	24.38	358.3	0.278
152.	19.56	35.04			24.93	309.0	100.	21.43	35.17	24.53	345.5	0.367
177.	18.59	34.95			25.11	292.6	150.	19.63	35.05	24.91	310.2	0.532
192.	17.90	34.88			25.22	281.8	200.	17.52	34.84	25.28	276.4	0.680
225.	16.28	34.68			25.46	260.3	250.	14.96	34.51	25.62	244.6	0.811
252.	14.85	34.50			25.64	243.2	300.	12.34	34.24	25.95	213.6	0.927
278.	13.10	34.32			25.87	221.6	400.	9.41	34.14	26.40	171.6	1.121
303.	12.26	34.23			25.96	212.8	500.	7.25	34.07	26.67	145.3	1.281
403.	9.33	34.14			26.41	170.4	600.	5.44	34.08	26.91	121.9	1.416
503.	7.19	34.07			26.68	144.7	700.	4.61	34.27	27.16	98.7	1.528
604.	5.38	34.08			26.92	121.0	800.	4.29	34.48	27.36	80.0	1.618
804.	4.29	34.49			27.37	79.3	1000.	3.86	34.54	27.46	72.1	1.772
1004.	3.85	34.54			27.46	72.2	1200.	3.40	34.54	27.50	68.3	1.914
1204.	3.39	34.54			27.50	68.3						
1451.	2.86	34.58			27.58	60.7						

TEMPERATURE ERROR TERM AT 700. METERS IS 0.11

Δ FROM BT DATA

Table 2.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 2, STATION 40, 24-57N LAT, 157- 5W LONG, APR. 4, 1964, 1400 G.C.T.
DRY BULB 23.4 WET BULB 20.3 WIND SPEED 20, DIR. 15 BAR. 19 WEATHER 00 VIS. 9 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.07	35.15			24.05	387.4	0.	23.07	35.15	24.05	387.4	0.000
10.	23.09	35.16			24.05	387.7	10.	23.09	35.16	24.05	387.7	0.040
49.	22.98	35.17			24.09	385.4	20.	23.11	35.16	24.05	388.3	0.079
103.	21.71	35.24			24.50	348.1	30.	23.09	35.17	24.05	388.1	0.118
125.	20.70	35.16			24.72	328.2	50.	22.97	35.17	24.09	385.0	0.196
150.	19.07	35.00			25.02	299.8	75.	22.56	35.22	24.25	371.0	0.291
178.	17.39	34.82			25.30	273.8	100.	21.82	35.24	24.47	350.9	0.382
194.	16.54	34.76			25.46	259.3	150.	19.07	35.00	25.02	299.8	0.546
226.	14.83	34.56			25.69	237.7	200.	16.24	34.73	25.50	255.0	0.685
251.	13.15	34.36			25.89	219.0	250.	13.21	34.37	25.88	219.6	0.805
281.	12.25	34.28			26.00	208.4	300.	11.78	34.25	26.07	202.5	0.912
306.	11.64	34.24			26.09	200.7	400.	9.26	34.12	26.41	170.8	1.100
408.	9.06	34.11			26.43	168.3	500.	7.05	34.06	26.69	143.4	1.258
510.	6.86	34.06			26.72	140.9	600.	5.41	34.13	26.96	117.8	1.390
611.	5.27	34.14			26.98	115.2	700.	4.63	34.22	27.12	102.2	1.502
814.	4.28	34.33			27.25	91.1	800.	4.29	34.32	27.23	92.2	1.600
1016.	3.72	34.49			27.43	74.4	1000.	3.76	34.48	27.42	75.4	1.769
1218.	3.23	34.54			27.52	66.5	1200.	3.27	34.54	27.51	67.0	1.914
1520.	2.66	34.61			27.63	56.5	1500.	2.69	34.61	27.62	56.9	2.102

TEMPERATURE ERROR TERM AT 700. METERS IS 0.10

CROMWELL 2, STATION 41, 23-25N LAT, 157- 0W LONG, APR. 4, 1964, 2300 G.C.T.
DRY BULB 23.5 WET BULB 20.5 WIND SPEED 14, DIR. 18 BAR. 21 WEATHER 01 VIS. 9 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.29	35.15			23.98	393.5	0.	23.29	35.15	23.98	393.5	0.000
9.	23.23	35.15			24.00	392.2	10.	23.23	35.15	24.00	392.3	0.040
47.	23.23	35.16			24.01	392.9	20.	23.23	35.14	23.99	393.2	0.080
71.	22.99	35.26			24.15	380.0	30.	23.23	35.14	23.99	393.6	0.119
95.	22.30	35.28			24.37	360.7	50.	23.22	35.17	24.02	391.8	0.198
118.	21.50	35.20			24.53	346.0	75.	22.90	35.27	24.19	376.9	0.295
142.	20.21	35.11			24.81	319.9	100.	22.15	35.27	24.40	357.8	0.388
165.	19.27	35.04			25.00	302.3	150.	19.91	35.09	24.88	313.8	0.557
179.	18.33	34.92			25.15	288.6	200.	17.33	34.82	25.31	273.4	0.705
210.	16.95	34.78			25.38	267.6	250.	14.98	34.55	25.65	242.0	0.835
234.	16.00	34.66			25.50	255.8	300.	12.65	34.38	26.00	209.5	0.949
259.	14.40	34.50			25.74	234.1	400.	9.28	34.14	26.42	169.4	1.140
282.	13.39	34.43			25.89	219.4	500.	6.96	34.05	26.70	142.5	1.297
374.	10.04	34.19			26.33	177.8	600.	5.60	34.14	26.94	119.6	1.430
468.	7.61	34.06			26.61	150.9	700.	5.03	34.29	27.13	102.4	1.542
560.	5.97	34.08			26.85	128.0	800.	4.73	34.39	27.25	91.8	1.640
746.	4.93	34.36			27.20	96.2	1000.	4.09	34.47	27.38	80.0	1.814
933.	4.32	34.44			27.33	84.6	1200.	3.47	34.55	27.50	68.6	1.964
1120.	3.70	34.53			27.46	72.1						
1348.	3.05	34.59			27.58	61.6						

CROMWELL 2, STATION 42, 22- 0N LAT, 157- 0W LONG, APR. 5, 1964, 0700 G.C.T.
DRY BULB 23.7 WET BULB 20.7 WIND SPEED 10, DIR. 21 BAR. 20 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.42	35.02			23.85	406.5	0.	23.42	35.02	23.85	406.5	0.000
9.	23.40	35.02			23.85	406.3	10.	23.40	35.02	23.86	406.0	0.041
46.	23.22	35.19			24.03	390.5	20.	23.36	35.06	23.90	402.5	0.082
72.	23.06	35.24			24.12	383.4	30.	23.31	35.11	23.94	398.4	0.122
94.	22.91	35.28			24.19	377.3	50.	23.20	35.20	24.05	389.3	0.202
116.	22.35	35.28			24.35	362.8	75.	23.05	35.25	24.13	382.9	0.299
139.	20.73	35.12			24.68	332.4	100.	22.83	35.29	24.22	374.5	0.394
165.	19.42	35.06			24.98	304.6	150.	20.10	35.09	24.82	319.0	0.569
180.	18.99	35.02			25.06	297.4	200.	18.32	34.93	25.16	288.1	0.722
210.	17.90	34.88			25.22	282.4	250.	15.51	34.62	25.58	248.7	0.858
233.	16.55	34.73			25.43	262.9	300.	13.34	34.42	25.89	219.6	0.976
260.	14.96	34.56			25.66	241.4	400.	9.13	34.15	26.45	166.2	1.170
284.	14.08	34.48			25.79	229.7	500.	7.03	34.14	26.76	137.5	1.324
378.	9.84	34.18			26.36	175.3	600.	6.12	34.20	26.93	121.3	1.454
475.	7.37	34.13			26.70	142.4	700.	5.34	34.30	27.10	105.6	1.569
571.	6.38	34.18			26.88	126.2	800.	4.78	34.39	27.24	92.7	1.669
764.	4.95	34.36			27.20	96.6	1000.	4.10	34.52	27.41	76.7	1.840
956.	4.24	34.50			27.39	79.4	1200.	3.52	34.59	27.53	66.4	1.985
1151.	3.66	34.56			27.49	69.6						
1446.	2.96	34.61			27.60	59.7						

Table 3.--Original and derived oceanographic data for Townsend Cromwell cruise 3

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 1, 20-36N LAT, 157-15W LONG, APR. 13, 1964, 0500 G.C.T.
DRY BULB 24.4 WET BULB 19.5 WIND SPEED 15, DIR. 13 BAR. 16 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.64	34.84			23.35	454.0	0.	24.64	34.84	23.35	453.9	0.000
10.	24.52	34.86			23.40	449.5	10.	24.52	34.86	23.40	449.5	0.046
50.	24.21	34.88			23.51	440.7	20.	24.44	34.87	23.43	447.2	0.091
103.	23.34	35.02			23.87	408.2	30.	24.37	34.87	23.46	445.0	0.136
127.	22.12	35.09			24.27	370.8	50.	24.21	34.88	23.51	440.7	0.225
153.	20.52	35.05			24.68	332.6	75.	23.99	34.94	23.62	431.4	0.335
179.	19.05	34.94			24.98	304.6	100.	23.43	35.01	23.84	411.3	0.441
194.	18.14	34.86			25.15	289.0	150.	20.71	35.06	24.64	336.6	0.630
228.	15.48	34.58			25.56	250.1	200.	17.66	34.81	25.23	281.3	0.786
255.	14.21	34.44			25.73	234.4	250.	14.42	34.46	25.70	236.9	0.916
282.	12.98	34.32			25.89	219.4	300.	12.00	34.25	26.02	206.7	1.028
307.	11.62	34.22			26.07	201.8	400.	8.99	34.14	26.46	165.3	1.216
408.	8.86	34.14			26.49	162.9	500.	6.55	34.14	26.83	130.3	1.365
510.	6.36	34.15			26.86	127.4	600.	5.90	34.28	27.02	112.6	1.487
610.	5.90	34.30			27.03	111.5	700.	5.50	34.38	27.14	101.8	1.596
813.	5.02	34.43			27.24	92.9	800.	5.08	34.43	27.23	93.7	1.695
1015.	4.16	34.51			27.40	78.2	1000.	4.22	34.51	27.39	79.1	1.870
1215.	3.60	34.54			27.48	70.9	1200.	3.64	34.54	27.48	71.3	2.022
1513.	2.84	34.58			27.59	60.8	1500.	2.87	34.58	27.58	61.1	2.223

CROMWELL 3, STATION 2, 19- 8N LAT, 156-58W LONG, APR. 13, 1964, 1500 G.C.T.
DRY BULB 23.9 WET BULB 19.2 WIND SPEED 12, DIR. 17 BAR. 15 WEATHER 02 VIS. 9 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.19	34.68			23.36	452.6	0.	24.19	34.68	23.36	452.6	0.000
10.	24.20	34.69			23.37	452.6	10.	24.20	34.69	23.37	452.6	0.046
102.	23.85	34.76			23.52	441.2	20.	24.16	34.69	23.38	451.8	0.092
126.	23.87	34.82			23.56	438.4	30.	24.13	34.70	23.39	450.9	0.137
151.	21.77	35.04			24.33	365.9	50.	24.06	34.71	23.42	448.8	0.228
176.	19.94	35.01			24.80	321.5	75.	23.96	34.73	23.47	445.5	0.340
192.	19.28	34.97			24.95	308.5	100.	23.86	34.76	23.52	441.6	0.452
225.	17.22	34.76			25.30	275.7	150.	21.87	35.03	24.30	369.2	0.656
251.	14.69	34.48			25.66	241.3	200.	18.88	34.93	25.02	301.6	0.825
277.	13.52	34.39			25.83	224.8	250.	14.78	34.49	25.65	242.5	0.963
302.	12.39	34.30			25.99	210.1	300.	12.48	34.31	25.98	211.2	1.077
403.	8.64	34.11			26.50	161.6	400.	8.73	34.11	26.49	162.8	1.266
505.	6.99	34.16			26.78	135.2	500.	7.04	34.15	26.77	136.3	1.417
603.	5.76	34.30			27.05	109.5	600.	5.79	34.30	27.04	110.3	1.541
802.	4.71	34.46			27.30	86.6	700.	5.11	34.39	27.21	95.3	1.645
1002.	4.00	34.52			27.43	75.4	800.	4.71	34.46	27.30	86.7	1.737
1201.	3.48	34.57			27.52	67.1	1000.	4.01	34.52	27.43	75.5	1.901
1496.	2.91	34.60			27.60	60.1	1200.	3.48	34.57	27.52	67.1	2.046

CROMWELL 3, STATION 3, 17-30N LAT, 157- 1W LONG, APR. 14, 1964, 0100 G.C.T.
DRY BULB 24.9 WET BULB 20.8 WIND SPEED 14, DIR. 11 BAR. 15 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.66	34.46			23.06	481.9	0.	24.66	34.46	23.06	481.9	0.000
8.	24.66	34.44			23.04	483.7	10.	24.66	34.44	23.04	483.9	0.049
49.	24.58	34.46			23.08	481.5	20.	24.65	34.43	23.04	484.6	0.098
100.	24.21	34.60			23.30	462.8	30.	24.64	34.43	23.04	484.4	0.147
125.	23.38	34.66			23.59	436.1	50.	24.58	34.46	23.08	481.5	0.244
151.	21.24	35.08			24.51	349.0	75.	24.52	34.52	23.15	476.2	0.365
177.	19.67	35.02			24.88	314.1	100.	24.21	34.60	23.30	462.8	0.483
192.	18.20	34.83			25.11	292.5	150.	21.33	35.06	24.47	352.4	0.688
225.	13.83	34.33			25.72	233.9	200.	17.15	34.70	25.27	277.8	0.847
249.	11.55	34.20			26.07	200.6	250.	11.50	34.20	26.08	199.8	0.968
279.	10.37	34.18			26.27	182.1	300.	9.66	34.18	26.39	170.7	1.061
294.	9.79	34.17			26.36	173.5	400.	8.33	34.37	26.75	137.3	1.216
386.	8.61	34.38			26.71	141.0	500.	6.69	34.32	26.95	119.0	1.346
488.	6.75	34.31			26.93	120.5	600.	6.48	34.45	27.08	108.2	1.460
607.	6.49	34.46			27.08	107.6	700.	5.84	34.49	27.19	97.8	1.564
772.	5.28	34.49			27.26	91.3	800.	5.12	34.49	27.28	89.3	1.659
954.	4.40	34.51			27.38	80.6	1000.	4.27	34.52	27.40	78.9	1.829
1209.	3.80	34.55			27.47	72.5	1200.	3.82	34.55	27.47	72.8	1.983
1509.	3.03	34.58			27.57	63.1	1500.	3.05	34.58	27.57	63.3	2.190

Table 3.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 3, STATION 4, 15-56N LAT, 157- 1W LONG, APR. 14, 1964, 1000 G.C.T. DRY BULB 24.0 WET BULB 21.2 WIND SPEED 16, DIR. 10 BAR. 15 WEATHER 00 VIS. 9 CLOUD TYPE , COVER												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.55	34.54			23.15	473.0	0.	24.55	34.54	23.15	473.0	0.000
11.	24.55	34.54			23.15	473.4	10.	24.55	34.54	23.15	473.4	0.048
50.Δ	24.51	34.56			23.18	472.4	20.	24.56	34.54	23.15	474.3	0.096
75.Δ	24.28	34.65			23.31	460.3	30.	24.56	34.54	23.15	474.5	0.144
98.	23.97	34.84			23.55	438.7	50.	24.51	34.56	23.18	472.4	0.239
122.	23.86	34.92			23.64	430.7	75.	24.28	34.65	23.31	460.3	0.357
146.	21.07	35.06			24.54	345.8	100.	24.01	34.85	23.54	439.3	0.470
169.	19.32	34.98			24.94	308.0	150.	20.88	35.08	24.61	339.6	0.666
183.	16.29	34.58			25.38	266.5	200.	13.99	34.36	25.72	234.0	0.811
215.	12.71	34.31			25.94	213.2	250.	10.95	34.36	26.31	178.0	0.914
240.	11.12	34.28			26.21	186.9	300.	9.94	34.48	26.58	153.2	0.998
264.	10.82	34.48			26.42	167.5	400.	9.39	34.63	26.79	135.2	1.144
287.	10.09	34.46			26.53	157.0	500.	7.87	34.53	26.95	120.4	1.273
383.	9.64	34.64			26.75	138.3	600.	6.90	34.51	27.07	109.3	1.389
479.	8.11	34.54			26.92	123.2	700.	6.08	34.50	27.17	100.5	1.495
576.	7.13	34.52			27.04	111.7	800.	5.49	34.49	27.24	94.0	1.593
770.	5.61	34.49			27.22	95.6	1000.	4.78	34.53	27.35	84.1	1.773
963.	4.95	34.53			27.33	86.2	1200.	4.04	34.56	27.45	74.8	1.934
1157.	4.09	34.55			27.44	75.7						
1450.	3.32	34.58			27.54	66.3						

TEMPERATURE ERROR TERM AT 150. METERS IS 0.12
TEMPERATURE ERROR TERM AT 200. METERS IS 0.12
TEMPERATURE ERROR TERM AT 300. METERS IS 0.10

CROMWELL 3, STATION 5, 14-32N LAT, 157- OW LONG, APR. 14, 1964, 1800 G.C.T. DRY BULB 25.6 WET BULB 22.7 WIND SPEED 12, DIR. 11 BAR. 12 WEATHER 01 VIS. 9 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.36	34.58			23.24	464.7	0.	24.36	34.58	23.24	464.7	0.000
10.	24.37	34.56			23.22	466.8	10.	24.37	34.56	23.22	466.8	0.047
44.Δ	24.38	34.58			23.23	467.0	20.	24.38	34.56	23.22	467.3	0.094
50.Δ	24.38	34.58			23.23	467.2	30.	24.38	34.57	23.22	467.4	0.142
75.Δ	23.84	34.86			23.60	432.7	50.	24.38	34.58	23.23	467.2	0.236
99.	23.27	35.03			23.90	405.4	75.	23.84	34.86	23.60	432.7	0.349
122.	20.91	35.06			24.58	340.8	100.	23.18	35.03	23.93	402.7	0.454
146.	18.89	34.94			25.02	299.6	150.	18.61	34.91	25.07	295.4	0.630
171.	16.86	34.67			25.31	272.3	200.	13.55	34.35	25.79	226.5	0.762
186.	15.00	34.46			25.57	247.4	250.	10.92	34.40	26.34	175.1	0.863
218.	12.11	34.29			26.04	203.5	300.	9.71	34.45	26.59	151.5	0.945
243.	10.93	34.34			26.29	179.2	400.	9.09	34.60	26.81	133.0	1.089
269.	10.90	34.52			26.44	166.0	500.	7.66	34.51	26.96	119.0	1.216
293.	9.84	34.45			26.57	153.7	600.	6.71	34.48	27.07	109.1	1.331
388.	9.26	34.60			26.78	135.1	700.	5.98	34.48	27.17	100.1	1.437
484.	7.85	34.52			26.94	120.8	800.	5.41	34.51	27.26	92.0	1.534
578.	6.89	34.48			27.05	111.3	1000.	4.48	34.55	27.40	79.4	1.707
765.	5.60	34.50			27.23	94.7	1200.	3.77	34.57	27.49	70.7	1.860
952.	4.68	34.54			27.37	81.9						
1138.	3.98	34.56			27.46	73.4						
1424.	3.22	34.58			27.55	64.9						

CROMWELL 3, STATION 6, 13- ON LAT, 157- OW LONG, APR. 15, 1964, 0300 G.C.T. DRY BULB 25.4 WET BULB 23.0 WIND SPEED 12, DIR. 08 BAR. 11 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	25.32	34.38			22.80	506.8	0.	25.32	34.38	22.80	506.8	0.000
10.	25.30	34.38			22.80	506.6	10.	25.30	34.38	22.80	506.6	0.052
30.Δ	25.12	34.18			22.71	516.5	20.	25.21	34.28	22.76	511.4	0.103
50.Δ	25.10	34.19			22.72	516.0	30.	25.12	34.18	22.71	516.5	0.155
75.Δ	25.08	34.19			22.73	516.4	50.	25.10	34.19	22.72	516.0	0.259
99.	24.66	34.42			23.03	488.6	75.	25.08	34.19	22.73	516.4	0.389
124.	23.39	34.67			23.59	435.7	100.	24.65	34.43	23.04	487.5	0.515
149.	18.69	34.70			24.89	312.2	150.	18.55	34.69	24.92	309.3	0.716
173.	15.72	34.51			25.45	258.8	200.	12.43	34.26	25.95	211.0	0.847
188.	13.91	34.37			25.74	231.6	250.	10.21	34.34	26.42	166.9	0.942
220.	10.57	34.17			26.23	185.0	300.	9.50	34.46	26.64	147.2	1.021
247.	10.24	34.32			26.40	168.9	400.	8.70	34.59	26.87	127.0	1.160
272.	9.94	34.46			26.56	154.2	500.	7.79	34.57	26.99	116.7	1.283
297.	9.53	34.46			26.63	147.9	600.	6.84	34.53	27.09	107.3	1.396
395.	8.74	34.59			26.86	127.7	700.	6.07	34.52	27.19	98.5	1.500
495.	7.84	34.57			26.98	117.1	800.	5.46	34.53	27.27	91.0	1.596
593.	6.90	34.53			27.08	107.9	1000.	4.59	34.54	27.38	81.1	1.770
790.	5.51	34.53			27.26	91.6	1200.	3.83	34.57	27.48	71.6	1.924
988.	4.64	34.54			27.37	81.8						
1186.	3.86	34.57			27.48	71.6						
1483.	2.99	34.60			27.59	61.0						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 3, STATION 7, 11-30N LAT, 157- 0W LONG, APR. 15, 1964, 1200 G.C.T.
DRY BULB 25.2 WET BULB 23.6 WIND SPEED 18, DIR. 09 BAR. 12 WEATHER 02 VIS. 9 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.91	34.66			22.83	504.0	0.	25.91	34.66	22.83	504.0	0.000
10.	25.92	34.66			22.82	504.7	10.	25.92	34.66	22.82	504.7	0.051
45.	25.65	34.66			22.91	498.1	20.	25.89	34.65	22.83	504.6	0.102
50.Δ	25.58	34.67			22.94	495.5	30.	25.82	34.65	22.85	503.0	0.153
75.Δ	25.50	34.68			22.97	493.4	50.	25.58	34.67	22.94	495.5	0.253
99.	22.28	35.03			24.18	378.3	75.	25.50	34.68	22.97	493.4	0.378
122.	19.67	35.00			24.87	313.6	100.	22.18	35.04	24.22	375.1	0.487
145.	15.58	34.50			25.48	255.6	150.	14.95	34.44	25.57	247.1	0.644
171.	12.84	34.28			25.89	216.8	200.	11.20	34.36	26.26	181.5	0.752
186.	11.55	34.24			26.10	196.2	250.	10.84	34.71	26.60	150.5	0.836
217.	11.21	34.56			26.41	167.4	300.	10.23	34.71	26.71	141.2	0.909
240.	10.95	34.70			26.57	153.0	400.	9.15	34.66	26.85	128.9	1.046
269.	10.61	34.70			26.63	147.8	500.	8.06	34.60	26.97	118.6	1.171
292.	10.32	34.71			26.69	142.6	600.	6.91	34.54	27.09	107.2	1.285
387.	9.28	34.67			26.83	130.2	700.	6.11	34.53	27.19	98.2	1.388
482.	8.29	34.61			26.94	120.8	800.	5.50	34.54	27.27	90.7	1.484
574.	7.15	34.55			27.06	109.8	1000.	4.48	34.57	27.41	77.8	1.654
762.	5.73	34.54			27.24	93.4	1200.	3.71	34.59	27.51	68.5	1.802
950.	4.72	34.56			27.38	80.9						
1139.	3.90	34.59			27.49	70.2						
1427.	3.17	34.60			27.57	62.8						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.13

CROMWELL 3, STATION 8, 11-30N LAT, 154- 0W LONG, APR. 16, 1964, 0800 G.C.T.
DRY BULB 26.2 WET BULB 24.0 WIND SPEED 28, DIR. 09 BAR. 13 WEATHER 02 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.59	34.71			22.65	520.8	0.	26.59	34.71	22.65	520.8	0.000
8.	26.63	34.72			22.65	521.6	10.	26.63	34.72	22.65	521.7	0.053
30.Δ	26.60	34.71			22.65	522.3	20.	26.63	34.72	22.64	522.2	0.106
43.	26.56	34.71			22.66	521.6	30.	26.60	34.71	22.65	522.3	0.158
50.Δ	26.51	34.71			22.68	520.4	50.	26.51	34.71	22.68	520.4	0.263
75.Δ	26.20	34.72			22.78	511.3	75.	26.20	34.72	22.78	511.3	0.393
96.	16.42	34.51			25.29	271.8	100.	15.45	34.50	25.50	251.7	0.489
119.	12.90	34.53			26.07	198.3	150.	11.68	34.76	26.49	159.2	0.593
140.	11.93	34.74			26.42	165.3	200.	11.10	34.74	26.57	151.9	0.671
169.	11.42	34.75			26.52	156.0	250.	10.37	34.73	26.70	141.0	0.745
182.	11.30	34.74			26.54	154.9	300.	10.03	34.72	26.75	137.3	0.815
214.	10.91	34.74			26.61	148.8	400.	9.28	34.67	26.84	130.2	0.950
237.	10.53	34.74			26.68	142.7	500.	8.49	34.63	26.93	122.7	1.078
266.	10.23	34.72			26.71	139.8	600.	7.54	34.58	27.04	113.4	1.197
289.	10.10	34.72			26.74	138.1	700.	6.67	34.56	27.14	103.8	1.307
385.	9.39	34.68			26.82	131.3	800.	5.91	34.56	27.24	94.9	1.407
485.	8.63	34.64			26.92	124.0	1000.	4.81	34.57	27.38	81.7	1.586
581.	7.72	34.59			27.01	115.3	1200.	4.04	34.58	27.47	73.0	1.743
774.	6.09	34.56			27.21	97.0						
971.	4.94	34.57			27.36	83.2						
1166.	4.18	34.58			27.46	74.7						
1460.	3.45	34.60			27.55	66.5						

TEMPERATURE ERROR TERM AT 100. METERS IS 0.12

CROMWELL 3, STATION 9, 13- 0N LAT, 154- 1W LONG, APR. 16, 1964, 1800 G.C.T.
DRY BULB 25.1 WET BULB 22.9 WIND SPEED 17, DIR. 08 BAR. 13 WEATHER 01 VIS. 8 CLOUD TYPE 4, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.71	34.37			22.97	489.8	0.	24.71	34.37	22.97	489.8	0.000
8.	24.71	34.38			22.98	489.4	10.	24.71	34.38	22.98	489.4	0.050
30.Δ	24.70	34.38			22.99	490.0	20.	24.70	34.38	22.99	489.6	0.099
50.Δ	24.70	34.38			22.99	490.8	30.	24.70	34.38	22.99	490.0	0.148
75.Δ	23.80	34.74			23.52	440.2	50.	24.70	34.38	22.99	490.8	0.247
97.	23.22	34.85			23.78	416.9	75.	23.80	34.74	23.52	440.2	0.365
100.Δ	23.18	34.85			23.79	415.9	100.	23.18	34.85	23.79	415.9	0.472
121.	19.37	34.75			24.75	324.2	150.	15.83	34.53	25.45	258.8	0.642
146.	16.55	34.58			25.32	271.1	200.	11.57	34.55	26.34	174.2	0.751
169.	12.81	34.38			25.97	208.8	250.	10.74	34.70	26.61	149.7	0.833
184.	11.98	34.45			26.19	188.5	300.	10.11	34.69	26.71	140.9	0.906
216.	11.37	34.64			26.45	164.3	400.	9.26	34.63	26.81	132.8	1.045
241.	10.92	34.70			26.58	152.5	500.	8.17	34.59	26.95	120.5	1.172
265.	10.47	34.69			26.65	146.0	600.	7.20	34.55	27.06	110.7	1.289
289.	10.20	34.69			26.70	142.0	700.	6.37	34.53	27.15	102.1	1.397
386.	9.41	34.64			26.79	134.5	800.	5.70	34.52	27.23	94.8	1.496
484.	8.33	34.60			26.93	122.2	1000.	4.82	34.55	27.36	83.3	1.676
581.	7.38	34.56			27.04	112.5	1200.	4.07	34.58	27.46	73.9	1.836
765.	5.90	34.52			27.21	97.2						
971.	4.94	34.55			27.35	84.7						
1165.	4.21	34.57			27.44	75.8						
1457.	3.27	34.60			27.56	64.2						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 3, STATION 10, 14-30N LAT, 154- 1W LONG, APR. 17, 1964, 0300 G.C.T.
DRY BULB 24.9 WET BULB 22.2 WIND SPEED 19, DIR. 07 BAR. 12 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 5

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.80	34.38			22.96	491.7	0.	24.80	34.38	22.96	491.7	0.000
11.	24.82	34.38			22.95	492.7	10.	24.82	34.38	22.95	492.6	0.050
49.	24.76	34.36			22.95	493.9	20.	24.84	34.37	22.94	494.2	0.100
74.	24.47	34.42			23.08	482.2	30.	24.83	34.36	22.93	495.0	0.150
100.	23.50	34.76			23.63	431.3	50.	24.76	34.36	22.95	493.9	0.249
125.	21.42	34.98			24.38	360.0	75.	24.45	34.43	23.10	480.9	0.372
149.	19.72	35.05			24.89	312.2	100.	23.50	34.76	23.63	431.3	0.487
174.	18.01	34.84			25.17	286.7	150.	19.66	35.05	24.90	311.0	0.674
190.	16.39	34.62			25.38	266.0	200.	15.51	34.53	25.52	253.6	0.816
223.	13.62	34.38			25.81	226.0	250.	11.42	34.23	26.12	195.8	0.929
248.	11.58	34.24			26.10	198.2	300.	9.13	34.28	26.55	155.2	1.018
275.	9.75	34.21			26.40	169.5	400.	8.35	34.50	26.85	128.3	1.161
298.	9.16	34.27			26.54	156.0	500.	7.32	34.50	27.00	114.8	1.284
398.	8.37	34.50			26.85	128.6	600.	6.58	34.50	27.10	105.7	1.395
499.	7.33	34.50			27.00	114.9	700.	5.84	34.50	27.20	97.2	1.497
601.	6.57	34.50			27.10	105.6	800.	5.20	34.50	27.28	89.9	1.592
800.	5.20	34.50			27.28	89.9	1000.	4.39	34.52	27.38	80.2	1.764
1000.	4.39	34.52			27.38	80.2	1200.	3.78	34.57	27.49	70.8	1.917
1200.	3.78	34.57			27.49	70.8						
1398.	3.11	34.58			27.56	63.4						

CROMWELL 3, STATION 11, 16- 3N LAT, 154- 0W LONG, APR. 17, 1964, 1300 G.C.T.
DRY BULB 23.9 WET BULB 21.2 WIND SPEED 21, DIR. 06 BAR. 15 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.40	34.53			23.19	469.4	0.	24.40	34.53	23.19	469.4	0.000
11.	24.40	34.52			23.18	470.6	10.	24.40	34.52	23.18	470.5	0.048
50.Δ	24.40	34.52			23.18	472.1	20.	24.45	34.50	23.15	473.7	0.095
75.Δ	23.80	34.71			23.50	442.4	30.	24.47	34.49	23.14	475.2	0.143
99.	23.35	34.81			23.71	423.5	50.	24.40	34.52	23.18	472.1	0.239
122.	21.72	34.98			24.30	367.8	75.	23.80	34.71	23.50	442.4	0.334
146.	20.25	35.02			24.73	327.6	100.	23.29	34.82	23.73	421.3	0.463
169.	19.19	34.98			24.98	304.8	150.	20.09	35.02	24.78	323.3	0.650
184.	17.97	34.82			25.16	287.5	200.	15.90	34.57	25.46	259.2	0.797
214.	14.06	34.36			25.70	236.1	250.	11.48	34.20	26.09	199.1	0.913
240.	12.07	34.19			25.97	210.6	300.	10.05	34.36	26.47	163.8	1.004
265.	10.80	34.26			26.26	183.3	400.	7.70	34.27	26.77	135.6	1.155
290.	10.32	34.36			26.42	168.3	500.	6.85	34.39	26.98	116.4	1.282
388.	7.85	34.26			26.74	138.4	600.	6.03	34.43	27.12	103.8	1.393
488.	6.96	34.38			26.96	118.3	700.	5.47	34.47	27.22	94.6	1.494
588.	6.11	34.42			27.10	105.1	800.	5.02	34.50	27.30	87.3	1.586
788.	5.08	34.50			27.29	88.2	1000.	4.17	34.55	27.43	75.2	1.750
989.	4.21	34.55			27.43	75.7	1200.	3.55	34.58	27.52	67.1	1.894
1188.	3.62	34.57			27.50	68.7						
1488.	2.90	34.63			27.62	57.7						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.15

CROMWELL 3, STATION 12, 17-31N LAT, 153-59W LONG, APR. 17, 1964, 2200 G.C.T.
DRY BULB 24.6 WET BULB 21.0 WIND SPEED 26, DIR. 07 BAR. 16 WEATHER 02 VIS. 8 CLOUD TYPE 6, COVER 3

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.76	34.54			23.39	450.7	0.	23.76	34.54	23.39	450.6	0.000
11.	23.77	34.53			23.37	452.0	10.	23.77	34.53	23.37	452.1	0.046
49.	23.20	34.82			23.76	416.7	20.	23.66	34.59	23.45	445.2	0.091
75.Δ	23.06	34.88			23.85	409.5	30.	23.52	34.66	23.55	436.4	0.136
99.	22.72	35.02			24.05	391.0	50.	23.19	34.82	23.76	416.4	0.221
123.	22.62	35.06			24.11	386.3	75.	23.06	34.88	23.85	409.5	0.325
146.	21.75	35.10			24.38	360.8	100.	22.72	35.02	24.05	390.9	0.426
173.	19.92	35.02			24.82	320.2	150.	21.50	35.09	24.45	354.7	0.614
188.	19.06	34.97			25.00	303.0	200.	17.93	34.83	25.18	286.5	0.776
221.	15.69	34.54			25.48	257.4	250.	13.08	34.31	25.86	221.3	0.904
246.	13.36	34.33			25.82	225.2	300.	10.57	34.18	26.24	185.7	1.006
271.	11.88	34.24			26.04	204.2	400.	8.94	34.47	26.73	139.9	1.171
297.	10.66	34.18			26.22	187.5	500.	7.69	34.50	26.95	120.2	1.302
394.	9.02	34.46			26.71	141.7	600.	6.66	34.48	27.08	108.3	1.417
493.	7.77	34.50			26.94	121.2	700.	5.94	34.49	27.18	99.3	1.522
590.	6.74	34.48			27.07	109.3	800.	5.39	34.50	27.26	92.2	1.619
785.	5.47	34.50			27.24	93.2	1000.	4.44	34.51	27.37	81.3	1.795
981.	4.51	34.51			27.36	82.3	1200.	3.73	34.55	27.48	71.8	1.950
1176.	3.86	34.55			27.46	73.0						
1370.	3.21	34.58			27.55	64.4						

Δ FROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 13, 19- ON LAT, 154- OW LONG, APR. 18, 1964, 0700 G.C.T.
DRY BULB 23.2 WET BULB 20.0 WIND SPEED 18, DIR. 06 BAR. 17 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.48	34.64			23.54	435.6	0.	23.48	34.64	23.54	435.6	0.000
10.	23.50	34.66			23.55	435.1	10.	23.50	34.66	23.55	435.1	0.044
50.Δ	23.49	34.65			23.55	437.1	20.	23.51	34.66	23.55	435.9	0.088
75.Δ	23.42	34.71			23.61	431.7	30.	23.51	34.66	23.55	436.5	0.132
99.	22.93	34.94			23.93	402.5	50.	23.49	34.65	23.55	437.1	0.220
123.	22.45	35.05			24.15	382.4	75.	23.42	34.71	23.61	431.7	0.330
147.	21.51	35.21			24.53	346.6	100.	22.91	34.95	23.94	401.8	0.435
171.	20.11	35.11			24.84	318.4	150.	21.36	35.21	24.57	343.0	0.622
185.	19.07	35.01			25.03	300.2	200.	17.46	34.80	25.27	277.4	0.779
216.	15.71	34.57			25.50	255.5	250.	13.16	34.31	25.84	223.2	0.905
241.	13.83	34.36			25.75	232.2	300.	10.76	34.19	26.21	188.5	1.009
265.	12.17	34.24			25.99	209.4	400.	8.87	34.33	26.63	149.1	1.179
288.	11.13	34.19			26.14	194.8	500.	7.31	34.38	26.91	123.6	1.317
381.	9.18	34.30			26.56	155.7	600.	5.96	34.31	27.04	111.3	1.435
475.	7.75	34.40			26.86	128.0	700.	5.43	34.38	27.16	100.1	1.542
569.	6.21	34.30			26.99	115.0	800.	5.09	34.47	27.27	90.7	1.639
757.	5.31	34.45			27.22	94.5	1000.	4.31	34.52	27.39	79.2	1.810
947.	4.44	34.51			27.37	81.0	1200.	3.83	34.55	27.47	72.8	1.964
1136.	4.07	34.54			27.43	76.0						
1424.	3.49	34.56			27.51	69.7						

TEMPERATURE ERROR TERM AT 200. METERS IS 0.11
TEMPERATURE ERROR TERM AT 700. METERS IS 0.10

CROMWELL 3, STATION 14, 20-30N LAT, 154- OW LONG, APR. 21, 1964, 1200 G.C.T.
DRY BULB 23.0 WET BULB 20.5 WIND SPEED 21, DIR. 10 BAR. 19 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.42	34.52			23.47	442.6	0.	23.42	34.52	23.47	442.6	0.000
9.	23.44	34.52			23.46	443.5	10.	23.44	34.52	23.46	443.6	0.045
47.	23.40	34.52			23.48	443.8	20.	23.44	34.52	23.46	444.1	0.090
75.Δ	23.30	34.54			23.52	440.7	30.	23.44	34.52	23.46	444.3	0.135
96.	22.80	34.90			23.94	401.7	50.	23.41	34.51	23.47	444.9	0.224
120.	22.55	35.00			24.08	388.6	75.	23.30	34.54	23.52	440.7	0.336
143.	22.02	35.07			24.29	370.1	100.	22.76	34.93	23.97	398.6	0.441
170.	19.36	34.72			24.73	327.8	150.	21.50	35.00	24.37	361.9	0.633
183.	17.57	34.58			25.07	295.5	200.	16.08	34.45	25.33	271.4	0.793
214.	15.21	34.39			25.47	257.8	250.	12.91	34.26	25.86	221.3	0.917
238.	13.74	34.34			25.75	231.8	300.	10.87	34.17	26.17	192.1	1.021
266.	11.92	34.17			25.98	210.0	400.	8.54	34.16	26.56	156.2	1.197
289.	11.18	34.17			26.12	197.1	500.	6.66	34.21	26.86	127.2	1.340
394.	8.67	34.16			26.53	158.2	600.	5.47	34.26	27.06	108.3	1.459
482.	6.95	34.20			26.82	131.4	700.	4.89	34.38	27.21	94.0	1.561
577.	5.65	34.24			27.02	112.2	800.	4.61	34.47	27.32	84.8	1.651
766.	4.71	34.45			27.29	87.0	1000.	4.10	34.52	27.42	76.5	1.815
958.	4.21	34.51			27.40	78.3	1200.	3.58	34.56	27.50	69.2	1.962
1151.	3.69	34.55			27.48	70.7						
1446.	3.00	34.58			27.57	62.3						

CROMWELL 3, STATION 15, 22- ON LAT, 154- 2W LONG, APR. 21, 1964, 2000 G.C.T.
DRY BULB 21.4 WET BULB 19.7 WIND SPEED 20, DIR. 07 BAR. 23 WEATHER 03 VIS. 8 CLOUD TYPE 7, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.37	34.64			23.57	432.5	0.	23.37	34.64	23.57	432.5	0.000
10.	23.35	34.64			23.58	432.4	10.	23.35	34.64	23.58	432.4	0.044
30.Δ	23.34	34.66			23.60	431.4	20.	23.34	34.65	23.59	431.9	0.088
50.Δ	23.36	34.68			23.61	431.3	30.	23.34	34.66	23.60	431.4	0.131
75.Δ	23.40	34.76			23.66	427.6	50.	23.36	34.68	23.61	431.3	0.218
100.	23.42	34.90			23.76	419.0	75.	23.40	34.76	23.66	427.6	0.326
124.	22.97	34.97			23.94	402.4	100.	23.42	34.90	23.76	419.0	0.433
149.	22.46	35.04			24.14	384.4	150.	22.41	35.04	24.15	383.1	0.635
174.	20.94	35.02			24.54	346.3	200.	19.37	34.99	24.94	309.3	0.809
189.	19.96	35.02			24.81	321.8	250.	15.85	34.58	25.48	258.8	0.953
221.	18.17	34.88			25.16	289.1	300.	12.26	34.23	25.96	212.5	1.071
247.	16.07	34.61			25.45	261.4	400.	8.94	34.14	26.48	164.0	1.261
272.	14.25	34.38			25.67	240.1	500.	7.06	34.16	26.77	136.2	1.413
298.	12.37	34.24			25.95	214.0	600.	5.44	34.18	27.00	114.3	1.539
395.	9.05	34.14			26.46	165.7	700.	4.95	34.30	27.14	100.7	1.648
493.	7.20	34.16			26.75	138.0	800.	4.84	34.42	27.26	91.1	1.745
591.	5.51	34.17			26.98	115.8	1000.	4.11	34.50	27.40	78.1	1.916
785.	4.90	34.41			27.24	92.5	1200.	3.56	34.53	27.48	70.8	2.067
979.	4.17	34.50			27.39	78.8						
1175.	3.65	34.50			27.45	74.1						
1469.	3.03	34.58			27.57	62.9						

TEMPERATURE ERROR TERM AT 700. METERS IS 0.15

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 16, 23-29N LAT, 153-58W LONG, APR. 22, 1964, 0500 G.C.T.
DRY BULB 22.8 WET BULB 19.9 WIND SPEED 24, DIR. 09 BAR. 22 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.34	34.68			23.61	428.8	0.	23.34	34.68	23.61	428.8	0.000
11.	23.35	34.70			23.63	428.1	10.	23.35	34.70	23.62	428.1	0.044
30.Δ	23.36	34.71			23.63	428.4	20.	23.39	34.67	23.60	431.3	0.087
48.	22.87	35.19			24.14	380.9	30.	23.36	34.71	23.63	428.4	0.130
74.	22.56	35.20			24.23	372.7	50.	22.84	35.20	24.15	379.1	0.212
98.	22.13	35.24			24.38	359.1	75.	22.55	35.20	24.24	372.2	0.306
120.	21.54	35.23			24.54	344.9	100.	22.09	35.24	24.40	357.9	0.398
144.	20.45	35.11			24.75	326.1	150.	20.30	35.10	24.78	323.2	0.570
172.	19.57	35.04			24.92	310.0	200.	17.86	34.85	25.21	283.0	0.723
185.	18.73	34.95			25.07	296.3	250.	14.72	34.49	25.66	240.9	0.855
214.	17.04	34.76			25.34	271.2	300.	12.51	34.29	25.96	213.2	0.969
240.	15.27	34.55			25.58	248.2	400.	9.52	34.11	26.35	175.9	1.165
268.	13.84	34.41			25.78	229.5	500.	7.29	34.04	26.65	148.0	1.329
290.	12.89	34.32			25.91	217.9	600.	5.61	34.06	26.88	125.1	1.467
387.	9.85	34.12			26.31	180.0	700.	4.83	34.20	27.08	106.3	1.584
485.	7.61	34.05			26.61	151.9	800.	4.47	34.35	27.24	91.9	1.684
580.	5.83	34.04			26.84	129.4	1000.	3.88	34.49	27.41	76.4	1.854
771.	4.59	34.32			27.20	95.2	1200.	3.41	34.56	27.52	67.0	2.000
965.	3.97	34.47			27.39	78.4						
1158.	3.53	34.54			27.49	69.6						
1453.	2.92	34.57			27.57	62.2						

CROMWELL 3, STATION 17, 23-30N LAT, 151- OW LONG, APR. 22, 1964, 2300 G.C.T.
DRY BULB 22.2 WET BULB 18.7 WIND SPEED 20, DIR. 09 BAR. 22 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.89	34.98			23.97	394.8	0.	22.89	34.98	23.97	394.8	0.000
10.	22.92	34.98			23.96	396.0	10.	22.92	34.98	23.96	396.0	0.040
30.Δ	22.92	35.06			24.02	391.0	20.	22.93	35.01	23.98	394.3	0.080
48.	22.82	35.13			24.10	383.9	30.	22.92	35.06	24.02	391.0	0.120
75.Δ	22.02	35.22			24.40	356.7	50.	22.77	35.14	24.13	381.9	0.198
98.	21.62	35.22			24.51	347.0	75.	22.02	35.22	24.40	356.7	0.291
122.	20.75	35.24			24.76	323.7	100.	21.56	35.22	24.53	345.0	0.379
146.	19.85	35.08			24.88	313.2	150.	19.69	35.07	24.91	310.3	0.544
171.	18.68	34.97			25.10	293.2	200.	16.95	34.72	25.33	271.6	0.691
188.	17.53	34.80			25.25	278.8	250.	14.20	34.39	25.70	237.5	0.819
220.	16.05	34.61			25.46	260.1	300.	11.64	34.20	26.06	203.2	0.930
245.	14.58	34.44			25.65	241.8	400.	8.78	34.05	26.43	167.9	1.117
272.	12.68	34.23			25.88	220.0	500.	6.70	34.01	26.70	142.0	1.274
295.	11.81	34.21			26.03	205.7	600.	5.46	34.10	26.93	120.7	1.407
394.	8.93	34.06			26.41	169.7	700.	4.79	34.20	27.09	105.6	1.521
495.	6.78	34.01			26.69	143.2	800.	4.44	34.31	27.21	94.5	1.622
594.	5.51	34.09			26.92	121.8	1000.	4.01	34.46	27.38	79.7	1.798
792.	4.46	34.30			27.20	95.3	1200.	3.63	34.53	27.47	71.7	1.952
993.	4.02	34.46			27.38	80.0						
1193.	3.65	34.51			27.45	73.5						
1495.	3.18	34.56			27.54	66.3						

CROMWELL 3, STATION 18, 22- 1N LAT, 150-58W LONG, APR. 23, 1964, 0800 G.C.T.
DRY BULB 21.7 WET BULB 19.5 WIND SPEED 15, DIR. 09 BAR. 21 WEATHER 00 VIS. 9 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.30	34.88			23.78	413.3	0.	23.30	34.88	23.78	413.3	0.000
11.	23.32	34.88			23.77	414.3	10.	23.32	34.88	23.77	414.2	0.042
30.Δ	23.28	34.89			23.79	413.2	20.	23.33	34.87	23.76	415.5	0.084
51.	22.85	35.16			24.12	382.6	30.	23.28	34.89	23.79	413.2	0.126
75.Δ	22.30	35.20			24.31	365.7	50.	22.88	35.15	24.10	384.3	0.206
102.	21.88	35.20			24.42	355.5	75.	22.30	35.20	24.31	365.7	0.300
127.	20.70	35.13			24.69	330.5	100.	21.92	35.20	24.41	356.4	0.391
153.	19.20	34.98			24.97	304.5	150.	19.37	35.00	24.94	307.2	0.559
177.	18.34	34.92			25.15	288.8	200.	17.28	34.77	25.29	275.5	0.705
192.	17.71	34.83			25.23	280.9	250.	13.80	34.36	25.75	232.0	0.833
226.	15.61	34.56			25.52	254.3	300.	11.80	34.20	26.03	206.2	0.944
254.	13.53	34.33			25.79	228.7	400.	9.09	34.10	26.42	169.4	1.133
280.	12.55	34.26			25.93	215.5	500.	6.61	34.08	26.77	136.0	1.288
304.	11.65	34.19			26.05	204.5	600.	5.79	34.25	27.01	113.8	1.414
405.	8.98	34.10			26.44	167.7	700.	5.20	34.37	27.17	98.6	1.521
507.	6.47	34.08			26.79	134.0	800.	4.71	34.44	27.28	88.4	1.616
606.	5.77	34.26			27.02	112.7	1000.	4.12	34.51	27.40	77.7	1.784
808.	4.68	34.44			27.29	87.8	1200.	3.87	34.52	27.44	75.5	1.939
1010.	4.10	34.51			27.41	77.5	1500.	3.36	34.56	27.52	68.6	2.158
1210.	3.86	34.52			27.44	75.5						
1513.	3.34	34.56			27.52	68.4						

Δ FROM BT DATA

Table 3.--Continued

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
CROMWELL 3, STATION 19, 20-30N LAT, 150-59W LONG, APR. 23, 1964, 1700 G.C.T. DRY BULB 21.8 WET BULB 18.7 WIND SPEED 16, DIR. 08 BAR. 18 WEATHER 02 VIS. 9 CLOUD TYPE 8, COVER 3												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.11	34.63			23.64	426.1	0.	23.11	34.63	23.64	426.1	0.000
10.	23.13	34.62			23.63	427.7	10.	23.13	34.62	23.63	427.7	0.043
30.Δ	23.06	34.66			23.68	423.7	20.	23.13	34.61	23.62	428.7	0.087
48.	22.59	35.00			24.07	387.0	30.	23.06	34.66	23.68	423.7	0.130
75.Δ	22.46	35.02			24.12	383.0	50.	22.57	35.01	24.09	385.6	0.211
101.	22.35	35.04			24.17	379.6	75.	22.46	35.02	24.12	383.0	0.308
123.	22.08	35.12			24.31	367.4	100.	22.36	35.04	24.17	379.8	0.404
148.	21.21	35.16			24.58	342.3	150.	21.11	35.16	24.60	339.9	0.585
173.	20.01	35.10			24.85	316.7	200.	19.22	35.01	24.99	304.3	0.748
188.	19.67	35.07			24.92	310.9	250.	16.34	34.63	25.41	265.7	0.891
220.	18.23	34.88			25.14	290.5	300.	12.59	34.22	25.89	219.5	1.014
246.	16.61	34.67			25.37	269.0	400.	8.68	34.13	26.51	160.4	1.205
273.	14.66	34.42			25.62	245.7	500.	7.08	34.24	26.83	130.5	1.352
296.	12.84	34.24			25.86	222.9	600.	5.61	34.23	27.01	112.9	1.475
395.	8.79	34.13			26.49	162.3	700.	5.02	34.33	27.16	99.1	1.582
494.	7.18	34.24			26.82	131.8	800.	4.79	34.45	27.28	88.6	1.677
592.	5.67	34.22			27.00	114.2	1000.	4.07	34.51	27.41	76.7	1.844
789.	4.83	34.44			27.27	89.5	1200.	3.56	34.55	27.50	69.3	1.992
986.	4.12	34.51			27.41	77.5						
1182.	3.56	34.55			27.49	69.4						
1478.	3.31	34.56			27.53	67.8						

TEMPERATURE ERROR TERM AT 700. METERS IS 0.12

CROMWELL 3, STATION 20, 19- ON LAT, 150-59W LONG, APR. 24, 1964, 0200 G.C.T. DRY BULB 22.9 WET BULB 20.3 WIND SPEED 21, DIR. 09 BAR. 16 WEATHER 01 VIS. 8 CLOUD TYPE 6, COVER 5												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.62	34.52			23.41	448.1	0.	23.62	34.52	23.41	448.1	0.000
10.	23.62	34.52			23.41	448.5	10.	23.62	34.52	23.41	448.5	0.046
30.Δ	23.62	34.52			23.41	449.3	20.	23.62	34.52	23.41	448.9	0.091
50.Δ	23.62	34.52			23.41	450.1	30.	23.62	34.52	23.41	449.3	0.136
75.Δ	23.54	34.53			23.44	448.1	50.	23.62	34.52	23.41	450.1	0.227
100.	22.95	34.88			23.88	407.4	75.	23.54	34.53	23.44	448.1	0.340
125.	22.60	35.01			24.08	389.4	100.	22.95	34.88	23.88	407.4	0.448
150.	21.75	35.14			24.41	358.1	150.	21.75	35.14	24.41	358.1	0.640
174.	20.32	35.12			24.79	323.2	200.	18.51	34.90	25.09	295.0	0.805
190.	19.31	35.03			24.98	304.9	250.	13.69	34.27	25.71	235.9	0.939
223.	16.39	34.56			25.34	271.4	300.	10.16	34.16	26.29	180.7	1.044
249.	13.78	34.28			25.70	237.2	400.	7.59	34.10	26.65	146.3	1.209
274.	11.70	34.18			26.03	205.4	500.	6.31	34.22	26.92	121.6	1.344
297.	10.29	34.16			26.27	182.6	600.	5.63	34.34	27.10	105.0	1.459
393.	7.72*	34.10			26.63	148.4	700.	5.26	34.42	27.21	95.6	1.560
487.	6.43	34.20			26.89	124.3	800.	4.99	34.47	27.28	89.4	1.653
582.	5.71	34.32			27.07	107.1	1000.	4.28	34.52	27.40	78.5	1.823
778.	5.07	34.46			27.26	90.9	1200.	3.70	34.55	27.48	71.0	1.975
976.	4.35	34.52			27.39	79.5						
1173.	3.79	34.54			27.46	72.9						
1471.	3.07	34.58			27.57	63.4						

CROMWELL 3, STATION 21, 17-30N LAT, 150-57W LONG, APR. 24, 1964, 1300 G.C.T. DRY BULB 23.0 WET BULB 20.3 WIND SPEED 22, DIR. 06 BAR. 15 WEATHER 02 VIS. 8 CLOUD TYPE , COVER												
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.82	34.40			23.26	462.4	0.	23.82	34.40	23.26	462.4	0.000
10.Δ	23.82	34.40			23.26	462.8	10.	23.82	34.40	23.26	462.8	0.047
30.Δ	23.78	34.41			23.28	461.7	20.	23.81	34.40	23.27	462.6	0.094
50.Δ	23.68	34.44			23.33	457.5	30.	23.78	34.41	23.28	461.7	0.140
75.Δ	23.58	34.49			23.40	452.1	50.	23.68	34.44	23.33	457.5	0.233
102.	23.00	34.77			23.78	416.8	75.	23.58	34.49	23.40	452.1	0.347
124.	21.22	34.88			24.36	361.9	100.	23.08	34.75	23.74	420.6	0.457
151.	18.83	34.83			24.95	306.3	150.	18.93	34.84	24.93	308.1	0.641
175.	15.91	34.48			25.39	265.1	200.	13.82	34.36	25.75	230.7	0.777
190.	14.61	34.42			25.63	242.3	250.	11.03	34.17	26.15	193.4	0.884
222.	12.34	34.24			25.95	211.6	300.	9.46	34.12	26.38	171.8	0.976
248.	11.12	34.18			26.14	194.4	400.	7.66	34.22	26.73	138.9	1.132
274.	10.13	34.12			26.26	182.4	500.	7.19	34.43	26.96	118.3	1.262
299.	9.48	34.12			26.37	172.2	600.	6.58	34.46	27.07	108.6	1.377
397.	7.68	34.21			26.72	139.?	700.	5.92	34.48	27.17	99.5	1.482
494.	7.22	34.42			26.95	119.1	800.	5.30	34.49	27.26	91.8	1.579
593.	6.63	34.46			27.07	109.3	1000.	4.46	34.52	27.38	80.8	1.754
790.	5.35	34.49			27.25	92.4	1200.	3.79	34.56	27.48	71.9	1.908
986.	4.51	34.52			27.37	81.6						
1183.	3.86	34.56			27.47	72.3						
1481.	3.06	34.58			27.57	63.3						

ΔFROM BT DATA
*INTERPOLATED VALUE

Table 3.--Continued

CROMWELL 3, STATION 22, 16- ON LAT, 151- 1W LONG, APR. 24, 1964, 2100 G.C.T.
DRY BULB 23.2 WET BULB 21.6 WIND SPEED 18, DIR. 06 BAR. 16 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 3

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	24.45	34.40			23.08	480.3	0.	24.45	34.40	23.08	480.2	0.000
10.Δ	24.45	34.40			23.08	480.6	10.	24.45	34.40	23.08	480.6	0.049
30.Δ	24.40	34.41			23.10	479.2	20.	24.43	34.40	23.08	480.2	0.097
50.Δ	24.28	34.42			23.14	475.9	30.	24.40	34.41	23.10	479.2	0.146
74.	23.22	34.70			23.66	426.9	50.	24.28	34.42	23.14	475.9	0.242
98.	22.52	34.84			23.97	398.5	75.	23.20	34.71	23.67	425.8	0.355
122.	20.83	35.09			24.63	336.6	100.	22.42	34.87	24.02	393.7	0.459
147.	17.86	34.71			25.10	291.7	150.	17.33	34.65	25.18	284.0	0.629
171.	14.10	34.31			25.65	239.4	200.	12.49	34.27	25.95	211.5	0.754
185.	13.28	34.29			25.81	224.9	250.	10.93	34.42	26.35	173.6	0.851
219.	11.68	34.28			26.11	196.4	300.	10.41	34.58	26.57	154.2	0.934
246.	11.00	34.40			26.33	176.1	400.	9.09	34.54	26.77	136.8	1.081
271.	10.63	34.50			26.47	162.9	500.	7.27	34.44	26.96	118.5	1.210
295.	10.46	34.57			26.56	155.3	600.	6.42	34.46	27.10	106.3	1.323
394.	9.21	34.55			26.75	138.1	700.	5.80	34.49	27.20	97.0	1.426
493.	7.35	34.44			26.95	119.5	800.	5.31	34.52	27.28	89.8	1.520
592.	6.47	34.46			27.09	107.1	1000.	4.38	34.54	27.40	78.5	1.691
791.	5.36	34.52			27.27	90.3	1200.	3.69	34.57	27.50	69.4	1.840
988.	4.43	34.54			27.40	79.1						
1187.	3.75	34.58			27.50	69.5						
1483.	3.01	34.60			27.59	61.2						

CROMWELL 3, STATION 23, 14-27N LAT, 151- 1W LONG, APR. 25, 1964, 0600 G.C.T.
DRY BULB 24.9 WET BULB 22.6 WIND SPEED 20, DIR. 04 BAR. 15 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	24.54	34.40			23.05	482.8	0.	24.54	34.40	23.05	482.8	0.000
10.	24.52	34.40			23.05	482.6	10.	24.52	34.40	23.05	482.6	0.049
30.Δ	24.48	34.40			23.07	482.2	20.	24.50	34.40	23.06	482.4	0.098
50.Δ	24.48	34.40			23.07	483.0	30.	24.48	34.40	23.07	482.2	0.146
75.Δ	22.88	34.78			23.82	411.8	50.	24.48	34.40	23.07	483.0	0.244
102.	21.79	35.00			24.30	367.5	75.	22.88	34.78	23.82	411.8	0.356
124.	18.65	34.85			25.01	299.5	100.	21.91	34.99	24.26	371.0	0.455
148.	15.38	34.48			25.51	252.9	150.	15.15	34.46	25.54	249.8	0.611
175.	12.82	34.26			25.87	218.0	200.	11.37	34.25	26.14	192.9	0.723
194.	11.59	34.20			26.06	200.1	250.	10.02	34.46	26.55	155.1	0.811
221.	10.83	34.44			26.39	169.6	300.	9.63	34.59	26.71	140.0	0.885
246.	10.08	34.45			26.53	156.7	400.	8.52	34.58	26.89	125.1	1.019
274.	9.82	34.53			26.64	147.1	500.	7.43	34.55	27.02	112.6	1.139
299.	9.64	34.59			26.71	140.2	600.	6.55	34.53	27.13	103.2	1.248
400.	8.52	34.58			26.89	125.1	700.	5.86	34.53	27.22	95.4	1.348
500.	7.43	34.55			27.02	112.6	800.	5.29	34.53	27.29	88.8	1.441
599.	6.56	34.53			27.13	103.3	1000.	4.33	34.54	27.41	77.9	1.610
795.	5.32	34.53			27.29	89.1	1200.	3.65	34.57	27.50	69.4	1.759
991.	4.36	34.54			27.40	78.3						
1186.	3.75	34.57			27.49	70.3						
1481.	2.96	34.61			27.60	59.9						

CROMWELL 3, STATION 24, 12-56N LAT, 150-59W LONG, APR. 25, 1964, 1600 G.C.T.
DRY BULB 24.6 WET BULB 22.3 WIND SPEED 20, DIR. 06 BAR. 14 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA					
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	25.08	34.46			22.93	494.1	0.	25.08	34.46	22.93	494.0	0.000
11.	25.09	34.46			22.93	494.8	10.	25.09	34.46	22.93	494.8	0.050
74.	23.66	34.50			23.38	453.5	20.	25.14	34.41	22.87	500.2	0.100
97.	21.67	34.94			24.28	368.5	30.	25.10	34.38	22.86	501.7	0.151
119.	19.28	34.90			24.89	311.1	50.	24.70	34.38	22.98	490.8	0.251
143.	15.98	34.52			25.40	262.8	75.	23.59	34.52	23.42	450.0	0.369
166.	13.05	34.30			25.86	219.2	100.	21.38	34.96	24.38	359.6	0.471
179.	11.89	34.35			26.12	194.1	150.	15.02	34.42	25.54	249.3	0.625
211.	11.29	34.59			26.42	166.4	200.	11.30	34.51	26.36	172.5	0.731
236.	10.98	34.67			26.54	155.7	250.	10.74	34.67	26.58	152.0	0.813
260.	10.57	34.66			26.61	149.8	300.	10.02	34.66	26.70	141.2	0.887
282.	10.25	34.67			26.67	144.1	400.	8.84	34.59	26.85	129.0	1.023
374.	9.14	34.60			26.80	132.9	500.	7.75	34.56	26.99	116.4	1.147
469.	8.07	34.58			26.95	119.4	600.	6.80	34.52	27.09	107.2	1.260
561.	7.16	34.53			27.05	111.2	700.	5.98	34.52	27.19	97.7	1.364
745.	5.66	34.52			27.24	93.7	800.	5.36	34.52	27.28	90.1	1.458
929.	4.80	34.54			27.36	83.2	1000.	4.51	34.55	27.39	79.7	1.630
1113.	4.10	34.56			27.45	74.7	1200.	3.79	34.57	27.49	70.7	1.783
1394.	3.23	34.60			27.57	63.3						

TEMPERATURE ERROR TERM AT 30. METERS IS 0.12
SALINITY ERROR TERM AT 30. METERS IS 0.06
TEMPERATURE ERROR TERM AT 50. METERS IS 0.13
SALINITY ERROR TERM AT 50. METERS IS 0.06
TEMPERATURE ERROR TERM AT 200. METERS IS 0.11

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 25, 11-30N LAT, 151- 0W LONG, APR. 25, 1964, 0900 G.C.T.
DRY BULB 26.5 WET BULB 23.9 WIND SPEED 22, DIR. 04 BAR. 15 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.74	34.77			22.65	521.0	0.	26.74	34.77	22.65	521.0	0.000
8.	26.76	34.76			22.63	522.6	10.	26.76	34.76	22.63	522.9	0.053
30.Δ	26.75	34.76			22.64	523.2	20.	26.77	34.76	22.63	523.6	0.106
50.Δ	26.62	34.76			22.68	520.1	30.	26.75	34.76	22.64	523.2	0.158
75.Δ	24.60	34.75			23.29	462.2	50.	26.62	34.76	22.68	520.1	0.264
97.	21.34	34.73			24.22	374.9	75.	24.60	34.75	23.29	462.2	0.387
120.	17.67	34.64			25.10	291.4	100.	20.88	34.72	24.33	363.6	0.491
145.	13.19	34.46			25.96	209.7	150.	12.74	34.50	26.08	198.0	0.633
169.	11.84	34.70			26.41	167.3	200.	11.31	34.74	26.53	155.6	0.722
185.	11.58	34.73			26.48	160.7	250.	10.68	34.74	26.65	145.8	0.798
216.	11.05	34.74			26.58	151.3	300.	10.13	34.72	26.73	139.1	0.870
242.	10.75	34.74			26.64	146.7	400.	9.28	34.67	26.84	130.2	1.006
268.	10.51	34.73			26.67	143.8	500.	8.26	34.61	26.95	120.4	1.132
292.	10.21	34.72			26.72	140.0	600.	7.14	34.57	27.08	108.3	1.248
389.	9.38	34.68			26.83	131.2	700.	6.27	34.55	27.18	99.3	1.353
487.	8.41	34.62			26.93	122.0	800.	5.58	34.54	27.26	91.8	1.449
582.	7.32	34.58			27.06	110.2	1000.	4.59	34.56	27.40	79.5	1.622
776.	5.73	34.54			27.24	93.6	1200.	3.90	34.58	27.48	71.6	1.775
967.	4.72	34.56			27.38	81.1						
1159.	4.07	34.58			27.47	73.3						
1450.	3.36	34.58			27.54	66.8						

CROMWELL 3, STATION 26, 10- ON LAT, 148- 1W LONG, APR. 27, 1964, 0300 G.C.T.
DRY BULB 26.0 WET BULB 24.0 WIND SPEED 18, DIR. 11 BAR. 11 WEATHER 01 VIS. 8 CLOUD TYPE 6, COVER 6

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.60	34.32			22.67	519.3	0.	25.60	34.32	22.67	519.3	0.000
11.	25.60	34.33			22.67	519.0	10.	25.60	34.33	22.67	519.2	0.053
30.Δ	25.44	34.36			22.75	512.9	20.	25.53	34.34	22.71	516.3	0.105
50.Δ	25.36	34.37			22.78	510.6	30.	25.44	34.36	22.75	512.9	0.157
75.Δ	25.32	34.37			22.79	510.4	50.	25.36	34.37	22.78	510.6	0.260
100.	18.94	34.52			24.69	329.7	75.	25.32	34.37	22.79	510.4	0.389
123.	13.93	34.38			25.74	229.5	100.	18.94	34.52	24.69	329.7	0.494
147.	12.04	34.58			26.27	179.2	150.	11.92	34.60	26.31	175.7	0.622
174.	11.42	34.70			26.48	159.8	200.	11.06	34.72	26.57	152.2	0.704
189.	11.23	34.72			26.53	155.3	250.	10.40	34.70	26.67	143.6	0.779
221.	10.74	34.72			26.62	147.5	300.	10.07	34.70	26.73	139.3	0.850
247.	10.43	34.70			26.66	144.2	400.	9.36	34.68	26.83	131.1	0.987
274.	10.21	34.72			26.72	139.6	500.	8.52	34.62	26.92	124.1	1.116
298.	10.08	34.70			26.72	139.4	600.	7.41	34.57	27.04	112.7	1.235
397.	9.38	34.68			26.83	131.3	700.	6.39	34.55	27.16	101.3	1.343
496.	8.56	34.62			26.91	124.5	800.	5.54	34.54	27.27	91.3	1.441
595.	7.47	34.57			27.03	113.3	1000.	4.46	34.56	27.41	78.4	1.612
791.	5.60	34.54			27.26	92.0	1200.	3.77	34.58	27.50	69.8	1.762
968.	4.60	34.55			27.39	80.3						
1160.	3.91	34.59			27.49	70.5						
1450.	3.37	34.59			27.55	66.2						

CROMWELL 3, STATION 27, 11-30N LAT, 148- 4W LONG, APR. 27, 1964, 1400 G.C.T.
DRY BULB 25.8 WET BULB 23.2 WIND SPEED 24, DIR. 06 BAR. 12 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.58	34.89			22.79	507.5	0.	26.58	34.89	22.79	507.5	0.000
10.	26.60	34.90			22.79	507.8	10.	26.60	34.90	22.79	507.8	0.052
30.Δ	26.60	34.90			22.79	508.6	20.	26.60	34.90	22.79	508.2	0.103
50.Δ	26.60	34.90			22.79	509.4	30.	26.60	34.90	22.79	508.6	0.154
75.Δ	26.48	34.90			22.83	506.8	50.	26.60	34.90	22.79	509.4	0.257
101.	18.03	34.59			24.97	302.9	75.	26.48	34.90	22.83	506.8	0.385
126.	14.97	34.43			25.56	247.2	100.	18.39	34.60	24.89	310.2	0.487
152.	12.48	34.55			26.17	189.7	150.	12.63	34.54	26.13	193.5	0.614
177.	11.74	34.65			26.39	169.3	200.	11.10	34.72	26.56	153.2	0.702
193.	11.24	34.71			26.53	156.3	250.	10.42	34.70	26.67	144.0	0.777
226.	10.72	34.72			26.63	147.2	300.	9.86	34.69	26.75	136.4	0.847
253.	10.39	34.70			26.67	143.7	400.	8.84	34.62	26.87	126.9	0.980
279.	10.13	34.70			26.72	139.8	500.	7.78	34.57	26.99	116.2	1.103
304.	9.81	34.69			26.76	135.7	600.	6.86	34.54	27.10	106.6	1.215
406.	8.79	34.62			26.87	126.5	700.	6.09	34.53	27.19	97.9	1.319
508.	7.70	34.57			27.00	115.3	800.	5.45	34.54	27.28	90.2	1.414
609.	6.78	34.54			27.11	105.8	1000.	4.46	34.56	27.41	78.3	1.584
812.	5.38	34.54			27.29	89.4	1200.	3.84	34.58	27.49	70.9	1.735
1013.	4.41	34.56			27.41	77.6	1500.	3.07	34.62	27.60	60.7	1.936
1214.	3.81	34.58			27.49	70.5						
1515.	3.04	34.62			27.60	60.3						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 28, 13- ON LAT, 148- 1W LONG, APR. 27, 1964, 2400 G.C.T.
DRY BULB 26.0 WET BULB 23.8 WIND SPEED 18, DIR. 07 BAR. 14 WEATHER 01 VIS. 7 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	26.05	34.88			22.95	492.3	0.	26.05	34.88	22.95	492.3	0.000
10.	26.00	34.88			22.96	491.2	10.	26.00	34.88	22.96	491.2	0.050
30.Δ	25.94	34.88			22.98	490.3	20.	25.97	34.88	22.97	490.6	0.099
50.Δ	25.90	34.88			23.00	489.9	30.	25.94	34.88	22.98	490.3	0.149
75.Δ	25.86	34.88			23.01	489.7	50.	25.90	34.88	23.00	489.9	0.248
100.Δ	21.40	34.75			24.21	375.2	75.	25.86	34.88	23.01	489.7	0.371
125.	17.26	34.58			25.15	286.5	100.	21.40	34.75	24.21	375.2	0.480
151.	13.34	34.32			25.82	223.0	150.	13.46	34.33	25.80	224.9	0.631
175.	12.05	34.54			26.24	183.0	200.	11.80	34.68	26.40	169.0	0.730
191.	11.87	34.64			26.35	172.8	250.	10.74	34.64	26.56	154.0	0.812
224.	11.45	34.70			26.48	161.5	300.	10.29	34.67	26.66	145.3	0.887
243.	10.86	34.64			26.54	155.9	400.	9.17	34.63	26.82	131.9	1.027
270.	10.53	34.66			26.61	149.4	500.	8.03	34.58	26.96	119.5	1.154
294.	10.35	34.67			26.65	146.1	600.	7.03	34.53	27.07	109.9	1.270
394.	9.24	34.63			26.81	132.7	700.	6.21	34.52	27.17	100.6	1.376
495.	8.08	34.58			26.95	120.0	800.	5.55	34.53	27.26	92.2	1.474
594.	7.08	34.53			27.06	110.5	1000.	4.57	34.54	27.38	80.9	1.649
795.	5.58	34.53			27.26	92.6	1200.	3.84	34.57	27.48	71.7	1.803
995.	4.59	34.54			27.38	81.2						
1194.	3.89	34.57			27.48	72.1						
1493.	3.08	34.62			27.60	60.7						

CROMWELL 3, STATION 29, 14-30N LAT, 148- 0W LONG, APR. 28, 1964, 1000 G.C.T.
DRY BULB 24.5 WET BULB 22.2 WIND SPEED 26, DIR. 07 BAR. 17 WEATHER 00 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	25.17	34.69			23.08	480.1	0.	25.17	34.69	23.08	480.1	0.000
9.	25.18	34.70			23.08	480.0	10.	25.18	34.70	23.08	480.1	0.049
30.Δ	25.18	34.69			23.07	481.6	20.	25.18	34.70	23.08	480.7	0.097
50.Δ	25.18	34.69			23.07	482.3	30.	25.18	34.69	23.07	481.6	0.146
75.Δ	25.18	34.69			23.07	483.3	50.	25.18	34.69	23.07	482.3	0.243
98.	24.43	34.49			23.15	477.0	75.	25.18	34.69	23.07	483.3	0.364
122.	20.58	34.88			24.54	345.3	100.	24.15	34.52	23.26	466.7	0.484
148.	17.72	34.65			25.09	292.8	150.	17.41	34.61	25.14	288.2	0.674
173.	14.15	34.30			25.63	241.2	200.	12.40	34.35	26.03	203.9	0.798
187.	13.11	34.33			25.87	218.7	250.	10.83	34.58	26.50	160.2	0.890
220.	11.62	34.41			26.22	185.8	300.	9.83	34.54	26.64	147.2	0.968
246.	10.95	34.58			26.48	162.0	400.	8.44	34.50	26.83	129.8	1.107
271.	10.26	34.53			26.56	154.3	500.	7.44	34.50	26.98	116.5	1.232
295.	9.91	34.54			26.66	148.3	600.	6.47	34.49	27.11	104.9	1.344
393.	8.52	34.50			26.82	130.8	700.	5.64	34.50	27.22	94.6	1.444
492.	7.52	34.50			26.97	117.5	800.	5.00	34.51	27.31	86.2	1.536
589.	6.57	34.49			27.10	106.2	1000.	4.30	34.56	27.43	76.1	1.700
783.	5.08	34.51			27.30	87.4	1200.	3.69	34.58	27.50	69.2	1.847
977.	4.39	34.56			27.42	76.9						
1170.	3.78	34.56			27.48	71.2						
1465.	3.03	34.59			27.56	62.1						

CROMWELL 3, STATION 30, 15-58N LAT, 148- 4W LONG, APR. 28, 1964, 1900 G.C.T.
DRY BULB 23.2 WET BULB 21.3 WIND SPEED 22, DIR. 07 BAR. 17 WEATHER 02 VIS. 8 CLOUD TYPE 8, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.72	34.61			23.45	444.5	0.	23.72	34.61	23.45	444.4	0.000
9.	23.73	34.62			23.45	444.4	10.	23.71	34.62	23.46	443.5	0.045
46.	22.49	34.89			24.02	392.1	20.	23.46	34.68	23.58	433.0	0.089
73.	21.74	35.14			24.42	355.0	30.	23.14	34.75	23.72	419.6	0.132
96.	21.58	35.17			24.48	349.4	50.	22.36	34.93	24.09	385.5	0.213
119.	20.89	35.16			24.66	332.9	75.	21.73	35.15	24.42	354.2	0.307
143.	19.73	35.11			24.94	307.9	100.	21.49	35.17	24.51	347.2	0.395
169.	17.76	34.84			25.23	280.6	150.	19.27	35.06	25.02	300.4	0.558
182.	16.49	34.61			25.35	268.7	200.	14.41	34.37	25.63	242.4	0.695
212.	13.15	34.27			25.82	224.5	250.	11.14	34.29	26.21	187.1	0.803
238.	11.69	34.28			26.11	197.0	300.	10.12	34.46	26.53	158.1	0.890
264.	10.66	34.31			26.32	177.2	400.	8.36	34.46	26.82	131.2	1.036
287.	10.35	34.43			26.47	163.6	500.	7.16	34.47	27.00	114.4	1.160
381.	8.66	34.46			26.77	135.7	600.	6.53	34.49	27.10	105.7	1.271
477.	7.35	34.47			26.97	117.0	700.	5.91	34.50	27.19	98.1	1.374
573.	6.71	34.49			27.08	107.9	800.	5.33	34.51	27.27	91.2	1.470
760.	5.56	34.50			27.23	94.1	1000.	4.43	34.54	27.39	79.6	1.643
949.	4.61	34.53			27.37	81.7	1200.	3.77	34.56	27.48	71.3	1.796
1139.	4.02	34.55			27.45	74.7						
1427.	3.22	34.59			27.56	64.2						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 31, 17-32N LAT, 148- 1W LONG, APR. 29, 1964, 0500 G.C.T.
DRY BULB 22.9 WET BULB 19.8 WIND SPEED 24, DIR. 07 BAR. 17 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 3

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.38	34.54			23.50	440.0	0.	23.38	34.54	23.50	440.0	0.000
10.	23.38	34.54			23.50	440.4	10.	23.38	34.54	23.50	440.4	0.045
30.Δ	23.26	34.57			23.55	435.7	20.	23.33	34.55	23.52	438.7	0.089
50.Δ	23.12	34.63			23.64	428.3	30.	23.26	34.57	23.55	435.7	0.133
76.	22.45	34.80			23.96	398.7	50.	23.12	34.63	23.64	428.3	0.220
100.	21.76	35.01			24.31	365.9	75.	22.48	34.79	23.94	400.1	0.325
125.	20.63	35.10			24.69	330.8	100.	21.76	35.01	24.31	365.9	0.421
150.	19.42	35.02			24.95	306.9	150.	19.42	35.02	24.95	306.9	0.591
175.	18.05	34.82			25.14	289.1	200.	15.62	34.45	25.43	261.7	0.734
190.	16.60	34.58			25.31	273.6	250.	11.45	34.21	26.10	198.1	0.850
224.	13.42	34.25			25.75	231.6	300.	10.36	34.44	26.47	163.3	0.941
250.	11.45	34.21			26.10	198.1	400.	8.74	34.46	26.76	137.2	1.092
276.	10.55	34.32			26.35	174.8	500.	7.46	34.45	26.94	120.5	1.223
300.	10.36	34.44			26.47	163.3	600.	6.57	34.46	27.07	108.6	1.338
401.	8.72	34.46			26.76	137.0	700.	5.94	34.47	27.17	100.3	1.444
501.	7.45	34.45			26.94	120.3	800.	5.45	34.49	27.24	93.9	1.542
600.	6.57	34.46			27.07	108.6	1000.	4.57	34.53	27.37	81.7	1.720
800.	5.45	34.49			27.24	93.9	1200.	3.88	34.56	27.47	72.6	1.876
998.	4.58	34.53			27.37	81.8						
1197.	3.91	34.56			27.47	73.1						
1497.	3.07	34.59			27.57	62.8						

CROMWELL 3, STATION 32, 19- 0N LAT, 147-58W LONG, APR. 29, 1964, 1400 G.C.T.
DRY BULB 22.2 WET BULB 18.9 WIND SPEED 25, DIR. 08 BAR. 19 WEATHER 02 VIS. 7 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.22	34.53			23.53	436.3	0.	23.22	34.53	23.53	436.3	0.000
9.	23.25	34.52			23.52	438.2	10.	23.25	34.52	23.52	438.3	0.045
50.Δ	23.10	34.64			23.65	427.0	20.	23.25	34.53	23.53	438.0	0.089
98.	22.36	34.98			24.12	384.1	30.	23.23	34.55	23.55	436.0	0.133
121.	22.07	35.11			24.30	367.7	50.	23.10	34.64	23.65	427.0	0.220
145.	20.89	35.15			24.66	334.6	75.	22.74	34.81	23.88	405.9	0.325
168.	19.76	35.08			24.90	311.7	100.	22.35	34.99	24.13	382.9	0.424
193.	19.27	35.05			25.01	302.2	150.	20.62	35.14	24.72	328.8	0.603
214.	17.13	34.72			25.29	276.2	200.	18.22	34.89	25.15	288.9	0.759
238.	15.10	34.47			25.56	250.3	250.	13.77	34.32	25.73	234.1	0.891
264.	12.38	34.20			25.91	216.3	300.	10.84	34.28	26.26	183.5	0.996
285.	11.40	34.26			26.15	194.4	400.	8.19	34.28	26.70	142.1	1.160
374.	8.77	34.28			26.61	150.6	500.	6.70	34.31	26.94	120.2	1.293
464.	7.09	34.29			26.87	126.4	600.	5.94	34.37	27.08	106.9	1.407
556.	6.25	34.34			27.02	112.5	700.	5.36	34.42	27.20	96.5	1.510
736.	5.19	34.44			27.23	93.4	800.	4.90	34.46	27.28	89.0	1.604
919.	4.45	34.49			27.35	82.4	1000.	4.17	34.51	27.40	78.1	1.773
1104.	3.85	34.54			27.46	73.0	1200.	3.55	34.56	27.50	68.8	1.922
1382.	3.08	34.59			27.57	62.1						

CROMWELL 3, STATION 33, 20-30N LAT, 148- 0W LONG, APR. 29, 1964, 2400 G.C.T.
DRY BULB 21.5 WET BULB 19.0 WIND SPEED 25, DIR. 07 BAR. 22 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 4

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.44	34.99			24.11	381.8	0.	22.44	34.99	24.11	381.8	0.000
10.	22.42	34.98			24.10	382.4	10.	22.42	34.98	24.10	382.4	0.039
30.Δ	22.36	35.00			24.14	380.1	20.	22.39	34.98	24.12	381.7	0.077
50.Δ	22.26	35.05			24.20	374.5	30.	22.36	35.00	24.14	380.1	0.116
75.Δ	22.18	35.10			24.26	369.7	50.	22.26	35.05	24.20	374.5	0.192
100.	22.05	35.15			24.34	363.5	75.	22.18	35.10	24.26	369.7	0.286
123.	21.23	35.20			24.60	339.1	100.	22.05	35.15	24.34	363.5	0.378
147.	19.42	35.03			24.96	306.1	150.	19.29	35.02	24.98	303.9	0.546
171.	18.59	34.94			25.10	293.2	200.	17.13	34.74	25.30	274.5	0.692
185.	18.06	34.87			25.18	286.0	250.	12.93	34.26	25.86	221.6	0.817
218.	15.71	34.55			25.49	257.0	300.	10.39	34.10	26.20	189.1	0.921
244.	13.37	34.30			25.80	227.5	400.	8.27	34.16	26.59	152.5	1.093
269.	11.73	34.18			26.02	205.8	500.	6.48	34.15	26.84	128.6	1.235
294.	10.58	34.10			26.17	191.9	600.	5.91	34.32	27.05	109.6	1.355
391.	8.47	34.16			26.56	155.1	700.	5.50	34.42	27.18	98.6	1.460
490.	6.58	34.14			26.82	130.8	800.	5.14	34.47	27.26	91.6	1.556
588.	5.96	34.31			27.03	111.2	1000.	4.30	34.50	27.38	80.2	1.730
784.	5.21	34.46			27.24	92.8	1200.	3.64	34.54	27.48	71.2	1.884
980.	4.37	34.50			27.37	81.2						
1177.	3.71	34.54			27.47	71.9						
1473.	3.02	34.57			27.56	63.5						

ΔFROM BT DATA

Table 3.--Continued

CROMWELL 3, STATION 34, 22- ON LAT, 148- OW LONG, APR. 30, 1964, 0900 G.C.T.
DRY BULB 22.1 WET BULB 18.9 WIND SPEED 26, DIR. 08 BAR. 24 WEATHER 00 VIS. 7 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	22.24	35.12			24.26	367.1	0.	22.24	35.12	24.26	367.0	0.000
10.	22.25	35.10			24.24	369.1	10.	22.25	35.10	24.24	369.1	0.038
30.Δ	22.24	35.12			24.26	368.2	20.	22.25	35.11	24.25	369.0	0.075
50.Δ	22.22	35.13			24.27	367.7	30.	22.24	35.12	24.26	368.2	0.112
75.Δ	22.18	35.14			24.29	366.8	50.	22.22	35.13	24.27	367.7	0.186
91.	22.04	35.15			24.34	362.9	75.	22.18	35.14	24.29	366.8	0.279
110.	21.61	35.25			24.54	345.0	100.	21.84	35.20	24.43	354.7	0.369
130.	21.37	35.28			24.62	337.2	150.	21.10	35.27	24.69	331.5	0.542
151.	21.08	35.27			24.70	331.1	200.	18.46	34.95	25.14	290.3	0.699
164.	20.54	35.23			24.81	320.5	250.	15.10	34.50	25.58	248.6	0.835
191.	19.03	35.04			25.06	297.3	300.	12.02	34.21	25.99	209.5	0.950
214.	17.53	34.80			25.25	279.6	400.	8.59	34.05	26.46	165.3	1.139
280.	13.17	34.31			25.84	223.8	500.	6.52	34.06	26.77	135.9	1.292
303.	11.86	34.20			26.01	207.5	600.	5.52	34.20	27.00	114.2	1.418
402.	8.55	34.05			26.47	164.6	700.	4.99	34.33	27.17	98.8	1.525
499.	6.53	34.06			26.76	136.2	800.	4.68	34.44	27.29	88.0	1.620
596.	5.55	34.19			26.99	114.9	1000.	4.11	34.53	27.42	75.9	1.786
793.	4.70	34.43			27.28	88.6	1200.	3.66	34.56	27.49	70.1	1.934
987.	4.14	34.53			27.42	76.3						
1184.	3.70	34.53			27.46	72.6						
1477.	3.22	34.58			27.55	65.2						

CROMWELL 3, STATION 35, 23-30N LAT, 148- OW LONG, APR. 30, 1964, 2000 G.C.T.
DRY BULB 21.6 WET BULB 18.5 WIND SPEED 25, DIR. 08 BAR. 26 WEATHER 02 VIS. 8 CLOUD TYPE 6, COVER 7

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.74	34.92			23.97	395.0	0.	22.74	34.92	23.97	395.0	0.000
10.	22.74	34.91			23.96	396.1	10.	22.74	34.91	23.96	396.1	0.040
30.Δ	22.70	34.94			23.99	393.6	20.	22.72	34.92	23.97	395.4	0.080
50.Δ	22.68	35.02			24.06	388.1	30.	22.70	34.94	23.99	393.6	0.120
75.Δ	22.62	35.11			24.15	380.9	50.	22.68	35.02	24.06	388.1	0.199
100.	22.40	35.19			24.27	370.1	75.	22.62	35.11	24.15	380.9	0.296
124.	21.35	35.14			24.52	346.6	100.	22.40	35.19	24.27	370.1	0.390
150.	20.17	35.07			24.79	322.1	150.	20.17	35.07	24.79	322.1	0.565
175.	19.67	35.10			24.94	308.2	200.	18.42	34.93	25.13	290.8	0.719
190.	18.88	35.00			25.07	296.5	250.	14.56	34.41	25.63	243.4	0.854
224.	17.01	34.72			25.32	273.8	300.	12.03	34.18	25.97	212.1	0.969
249.	14.62	34.42			25.63	244.2	400.	8.98	34.08	26.42	169.2	1.161
275.	13.35	34.30			25.80	227.9	500.	6.77	34.03	26.71	141.6	1.318
300.	12.03	34.18			25.97	212.1	600.	5.22	34.12	26.97	115.9	1.448
398.	9.03	34.08			26.41	169.9	700.	4.64	34.26	27.15	99.5	1.557
496.	6.85	34.03			26.70	142.7	800.	4.47	34.39	27.28	88.7	1.652
592.	5.29	34.11			26.96	117.5	1000.	3.98	34.51	27.42	76.1	1.819
786.	4.51	34.38			27.26	89.9	1200.	3.48	34.56	27.51	67.8	1.964
980.	4.03	34.50			27.41	77.1						
1174.	3.52	34.54			27.49	69.6						
1466.	2.86	34.58			27.58	60.8						

TEMPERATURE ERROR TERM AT 700. METERS IS 0.12

CROMWELL 3, STATION 36, 25- ON LAT, 148- OW LONG, MAY 1, 1964, 0600 G.C.T.
DRY BULB 20.8 WET BULB 17.2 WIND SPEED 24, DIR. 08 BAR. 25 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

ORIGINAL DATA					DERIVED DATA		INTERPOLATED DATA				
DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	21.33	35.29			24.64	330.6	0.	21.33	35.29	24.64	330.6	0.000
10.Δ	21.34	35.29			24.64	331.2	10.	21.34	35.29	24.64	331.2	0.034
50.Δ	21.34	35.29			24.64	332.7	20.	21.34	35.29	24.64	331.7	0.067
75.Δ	21.34	35.29			24.64	333.7	30.	21.34	35.29	24.64	332.1	0.101
121.	20.79	35.26			24.77	323.2	50.	21.34	35.29	24.64	332.7	0.168
147.	20.04	35.18			24.91	310.8	75.	21.34	35.29	24.64	333.7	0.252
171.	19.26	35.08			25.03	299.4	100.	21.15	35.28	24.69	329.9	0.335
186.	18.68	34.97			25.10	293.7	150.	19.95	35.17	24.92	309.3	0.496
217.	17.14	34.74			25.30	275.1	200.	18.01	34.86	25.18	285.9	0.646
242.	15.92	34.60			25.48	258.6	250.	15.51	34.54	25.53	253.9	0.782
268.	14.50	34.42			25.65	242.2	300.	12.53	34.25	25.93	216.1	0.901
292.	12.91	34.28			25.87	221.2	400.	9.50	34.11	26.36	175.1	1.098
388.	9.80	34.13			26.33	178.5	500.	7.35	34.04	26.64	149.1	1.262
482.	7.74	34.04			26.58	154.5	600.	5.63	34.11	26.91	122.2	1.399
574.	5.95	34.08			26.85	127.9	700.	4.74	34.22	27.11	103.9	1.513
764.	4.47	34.30			27.20	95.2	800.	4.34	34.34	27.25	90.9	1.612
956.	4.01	34.48			27.39	78.1	1000.	3.91	34.49	27.42	76.2	1.781
1146.	3.57	34.51			27.46	72.2	1200.	3.46	34.55	27.51	68.2	1.927
1435.	3.00	34.56			27.56	63.7						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 37, 26-25N LAT, 148- 0W LONG, MAY 1, 1964, 1600 G.C.T.
DRY BULB 19.0 WET BULB 16.9 WIND SPEED 22, DIR. 08 BAR. 26 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 7

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	20.93	35.33			24.78	317.4	0.	20.93	35.33	24.78	317.3	0.000
11.	20.94	35.35			24.80	316.5	10.	20.94	35.35	24.79	316.6	0.032
52.	20.44	35.33			24.92	306.6	20.	20.84	35.35	24.82	314.3	0.064
75.Δ	20.44	35.34			24.92	306.8	30.	20.72	35.35	24.85	311.8	0.096
103.	20.43	35.35			24.93	306.8	50.	20.47	35.33	24.91	307.1	0.158
129.	20.45	35.34			24.92	309.0	75.	20.44	35.34	24.92	306.8	0.235
155.	19.76	35.18			24.98	304.0	100.	20.43	35.35	24.93	306.7	0.313
180.	18.47	34.97			25.15	288.4	150.	19.95	35.22	24.96	305.7	0.467
195.	17.21	34.74			25.28	276.0	200.	16.85	34.68	25.33	272.0	0.613
229.	14.82	34.42			25.58	247.8	250.	13.16	34.24	25.79	228.0	0.739
256.	12.74	34.20			25.84	222.9	300.	11.30	34.15	26.08	201.3	0.847
283.	11.76	34.16			26.00	208.2	400.	9.01	34.08	26.41	169.9	1.034
308.	11.10	34.14			26.11	198.3	500.	6.80	34.01	26.69	143.4	1.192
409.	8.82	34.07			26.44	167.5	600.	5.34	34.07	26.92	121.1	1.326
509.	6.62	34.01			26.71	141.2	700.	4.60	34.18	27.10	104.7	1.440
608.	5.26	34.08			26.94	119.5	800.	4.22	34.30	27.23	92.6	1.540
801.	4.22	34.30			27.23	92.5	1000.	3.70	34.44	27.39	77.6	1.712
998.	3.70	34.44			27.39	77.7	1200.	3.26	34.53	27.51	67.6	1.859
1193.	3.29	34.52			27.50	68.5						
1489.	2.76	34.58			27.59	59.7						

CROMWELL 3, STATION 38, 25- 0N LAT, 151- 3W LONG, MAY 2, 1964, 0900 G.C.T.
DRY BULB 22.2 WET BULB 18.9 WIND SPEED 14, DIR. 07 BAR. 25 WEATHER 00 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.15	35.19			24.34	359.6	0.	22.15	35.19	24.34	359.6	0.000
10.	22.16	35.18			24.33	360.9	10.	22.16	35.18	24.33	360.9	0.037
30.Δ	22.10	35.21			24.37	357.9	20.	22.17	35.19	24.33	361.1	0.073
48.	21.56	35.29			24.58	338.5	30.	22.10	35.21	24.37	357.9	0.109
75.	21.29	35.30			24.66	331.6	50.	21.54	35.29	24.59	337.6	0.179
99.	20.56	35.22			24.80	319.4	75.	21.29	35.30	24.66	331.6	0.264
122.	19.92	35.14			24.91	309.7	100.	20.53	35.22	24.80	318.9	0.346
148.	19.07	35.00			25.02	299.7	150.	18.96	34.98	25.03	298.6	0.501
173.	17.80	34.77			25.16	286.8	200.	16.94	34.71	25.33	272.0	0.645
189.	17.47	34.76			25.24	280.3	250.	14.40	34.48	25.72	235.7	0.773
220.	15.80	34.60			25.50	255.4	300.	12.21	34.28	26.01	208.5	0.885
246.	14.63	34.50			25.69	238.5	400.	9.05	34.09	26.42	169.4	1.076
274.	13.12	34.34			25.88	220.5	500.	6.49	34.02	26.74	138.4	1.231
298.	12.28	34.28			26.00	209.4	600.	5.13	34.10	26.97	116.7	1.360
393.	9.26	34.10			26.39	172.0	700.	4.53	34.21	27.13	101.7	1.470
489.	6.70	34.02			26.71	141.3	800.	4.26	34.33	27.25	90.7	1.568
586.	5.25	34.08			26.94	119.1	1000.	3.72	34.47	27.42	75.7	1.736
779.	4.33	34.31			27.22	92.9	1200.	3.29	34.55	27.52	66.7	1.880
973.	3.78	34.46			27.40	77.0						
1167.	3.39	34.52			27.49	69.5						
1462.	2.81	34.58			27.59	60.2						

CROMWELL 3, STATION 39, 25- 1N LAT, 154- 0W LONG, MAY 2, 1964, 2400 G.C.T.
DRY BULB 25.5 WET BULB 20.7 WIND SPEED 15, DIR. 08 BAR. 22 WEATHER 01 VIS. 8 CLOUD TYPE 8, COVER 2

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.24	34.93			23.83	408.0	0.	23.24	34.93	23.83	408.0	0.000
10.	23.19	34.91			23.83	408.5	10.	23.19	34.91	23.83	408.5	0.042
50.Δ	23.08	35.00			23.93	400.5	20.	23.19	34.90	23.83	409.3	0.083
76.	22.62	35.24			24.24	371.5	30.	23.17	34.92	23.84	408.2	0.124
102.	22.08	35.24			24.40	357.9	50.	23.08	35.00	23.93	400.5	0.205
127.	20.78	35.12			24.66	333.3	75.	22.64	35.23	24.23	372.7	0.303
152.	19.51	35.01			24.92	309.9	100.	22.14	35.25	24.39	358.9	0.395
177.	18.16	34.88			25.16	287.4	150.	19.61	35.02	24.90	311.8	0.564
192.	17.30	34.78			25.29	275.0	200.	16.88	34.73	25.36	268.9	0.710
226.	15.52	34.59			25.56	250.2	250.	14.17	34.43	25.73	234.1	0.837
252.	14.07	34.42			25.74	233.0	300.	12.22	34.24	25.98	211.3	0.949
278.	13.27	34.34			25.85	223.5	400.	9.30	34.08	26.37	174.2	1.144
304.	12.02	34.22			26.00	209.1	500.	6.61	34.02	26.72	140.2	1.303
404.	9.22	34.08			26.38	173.0	600.	5.20	34.08	26.95	118.4	1.433
505.	6.49	34.02			26.74	138.7	700.	4.53	34.21	27.12	102.0	1.545
606.	5.15	34.09			26.96	117.4	800.	4.21	34.34	27.26	89.4	1.641
807.	4.20	34.35			27.27	88.6	1000.	3.81	34.49	27.42	75.6	1.808
1008.	3.80	34.49			27.42	75.3	1200.	3.37	34.54	27.51	68.0	1.954
1207.	3.35	34.54			27.51	67.8	1500.	2.84	34.58	27.59	60.7	2.150
1509.	2.82	34.58			27.59	60.6						

ΔFROM BT DATA

Table 3.--Continued

ORIGINAL DATA | DERIVED DATA | INTERPOLATED DATA

CROMWELL 3, STATION 40, 25- ON LAT, 157- OW LONG, MAY 3, 1964, 1600 G.C.T.
DRY BULB 23.0 WET BULB 19.9 WIND SPEED 16, DIR. 09 BAR. 21 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	22.66	35.25			24.24	369.0	0.	22.66	35.25	24.24	369.0	0.000
10.	22.66	35.24			24.23	370.1	10.	22.66	35.24	24.23	370.1	0.038
30.Δ	22.66	35.24			24.23	370.9	20.	22.66	35.24	24.23	370.6	0.075
50.Δ	22.66	35.24			24.23	371.6	30.	22.66	35.24	24.23	370.9	0.112
75.Δ	22.20	35.22			24.35	361.6	50.	22.66	35.24	24.23	371.6	0.187
102.	20.81	35.12			24.66	333.1	75.	22.20	35.22	24.35	361.6	0.280
126.	19.74	35.04			24.88	312.6	100.	20.93	35.13	24.63	335.4	0.367
151.	18.44	34.90			25.11	291.8	150.	18.49	34.91	25.10	292.6	0.526
177.	17.27	34.78			25.30	273.9	200.	16.16	34.68	25.49	256.7	0.664
192.	16.52	34.72			25.43	261.7	250.	13.97	34.43	25.77	230.1	0.787
225.	15.10	34.56			25.63	243.4	300.	11.93	34.24	26.03	205.6	0.897
252.	13.88	34.42			25.78	229.1	400.	9.38	34.11	26.38	173.2	1.088
279.	12.81	34.32			25.92	216.0	500.	7.29	34.03	26.64	148.8	1.250
304.	11.77	34.23			26.05	203.7	600.	5.79	34.08	26.88	125.9	1.389
404.	9.31	34.11			26.39	172.3	700.	4.86	34.19	27.07	107.2	1.507
507.	7.16	34.03			26.65	147.3	800.	4.31	34.31	27.23	92.7	1.609
606.	5.72	34.09			26.89	124.6	1000.	3.78	34.46	27.40	77.4	1.780
807.	4.28	34.32			27.24	91.8	1200.	3.26	34.54	27.51	66.8	1.926
1005.	3.77	34.46			27.40	77.1	1500.	2.70	34.58	27.60	59.0	2.117
1204.	3.25	34.54			27.52	66.6						
1504.	2.69	34.58			27.60	59.0						

CROMWELL 3, STATION 41, 23-29N LAT, 157- OW LONG, MAY 4, 1964, 0600 G.C.T.
DRY BULB 23.7 WET BULB 20.9 WIND SPEED 21, DIR. 09 BAR. 19 WEATHER 03 VIS. 8 CLOUD TYPE 8, COVER 5

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
1.	23.42	34.87			23.73	417.4	0.	23.42	34.87	23.73	417.3	0.000
10.	23.44	34.89			23.74	416.8	10.	23.44	34.89	23.74	416.8	0.043
30.Δ	23.42	34.90			23.76	416.3	20.	23.43	34.90	23.75	416.6	0.084
50.Δ	23.40	34.92			23.78	415.1	30.	23.42	34.90	23.76	416.3	0.126
75.Δ	23.38	34.93			23.79	414.8	50.	23.40	34.92	23.78	415.1	0.210
100.	22.20	35.08			24.24	372.6	75.	23.38	34.93	23.79	414.8	0.315
124.	20.96	35.05			24.56	342.9	100.	22.20	35.08	24.24	372.6	0.414
150.	20.16	35.08			24.80	321.1	150.	20.16	35.08	24.80	321.1	0.589
174.	19.02	34.96			25.00	302.3	200.	17.97	34.82	25.16	287.8	0.742
190.	18.52	34.88			25.07	296.5	250.	14.26	34.45	25.73	234.3	0.874
223.	16.36	34.67			25.43	262.7	300.	11.86	34.26	26.07	202.7	0.984
249.	14.33	34.46			25.72	235.3	400.	8.68	34.09	26.47	163.9	1.169
273.	12.88	34.34			25.92	215.8	500.	6.50	34.05	26.76	136.5	1.320
298.	11.93	34.27			26.06	203.6	600.	5.45	34.12	26.95	118.9	1.449
397.	8.76	34.09			26.46	164.9	700.	4.84	34.24	27.12	103.3	1.562
496.	6.56	34.05			26.75	137.3	800.	4.47	34.37	27.25	90.7	1.660
592.	5.51	34.11			26.93	120.3	1000.	3.89	34.49	27.41	76.2	1.829
792.	4.54	34.35			27.23	92.5	1200.	3.40	34.56	27.52	66.7	1.973
974.	3.95	34.48			27.40	77.5						
1166.	3.51	34.54			27.49	69.4						
1461.	2.86	34.61			27.61	58.6						

CROMWELL 3, STATION 42, 21-58N LAT, 157- OW LONG, MAY 4, 1964, 1500 G.C.T.
DRY BULB 23.2 WET BULB 20.1 WIND SPEED 22, DIR. 09 BAR. 18 WEATHER 02 VIS. 8 CLOUD TYPE , COVER

DEPTH	TEMP.	SAL.	OXY.	PO4-P	SIGMA-T	DELTA	DEPTH	TEMP.	SAL.	SIGMA-T	DELTA	DYN.DPTH.
0.	23.26	35.00			23.88	403.5	0.	23.26	35.00	23.88	403.5	0.000
9.	23.24	35.01			23.89	402.6	10.	23.24	35.01	23.89	402.5	0.041
30.Δ	23.20	35.03			23.92	400.8	20.	23.22	35.02	23.91	401.5	0.082
50.Δ	23.20	35.03			23.92	401.6	30.	23.20	35.03	23.92	400.8	0.122
75.Δ	23.20	35.03			23.92	402.6	50.	23.20	35.03	23.92	401.6	0.203
100.Δ	23.18	35.03			23.92	403.0	75.	23.20	35.03	23.92	402.6	0.304
123.	21.52	35.07			24.42	356.1	100.	23.18	35.03	23.92	403.0	0.406
148.	20.60	35.05			24.66	334.5	150.	20.50	35.05	24.69	332.0	0.591
174.	19.05	35.00			25.03	300.1	200.	16.88	34.74	25.36	268.8	0.742
190.	17.72	34.84			25.24	280.4	250.	13.96	34.43	25.77	229.9	0.868
222.	15.28	34.55			25.58	247.8	300.	12.29	34.32	26.02	206.9	0.978
247.	14.12	34.44			25.75	232.4	400.	8.75	34.08	26.46	165.6	1.166
276.	12.74	34.36			25.97	211.7	500.	6.26	34.04	26.78	133.9	1.317
299.	12.32	34.32			26.02	207.2	600.	5.29	34.15	26.99	114.4	1.442
399.	8.78	34.08			26.45	165.9	700.	4.87	34.28	27.14	100.8	1.551
499.	6.27	34.04			26.78	134.2	800.	4.62	34.40	27.26	90.2	1.648
598.	5.30	34.15			26.99	114.7	1000.	3.76	34.51	27.44	73.2	1.813
793.	4.65	34.39			27.25	91.0	1200.	3.23	34.56	27.53	64.9	1.953
988.	3.80	34.51			27.44	73.6						
1184.	3.33	34.53			27.50	68.2						
1478.	2.77	34.60			27.61	58.3						

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ΔFROM BT DATA

Created in 1849 the Department of the Interior--a department of conservation--is concerned with the management, conservation, and development of the Nation's water, fish, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and Territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States--now and in the future.

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF COMMERCIAL FISHERIES
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